

CITY HALL PONDS MAINTENANCE DREDGING PROJECT

NEWTON CENTRE, MASSACHUSETTS

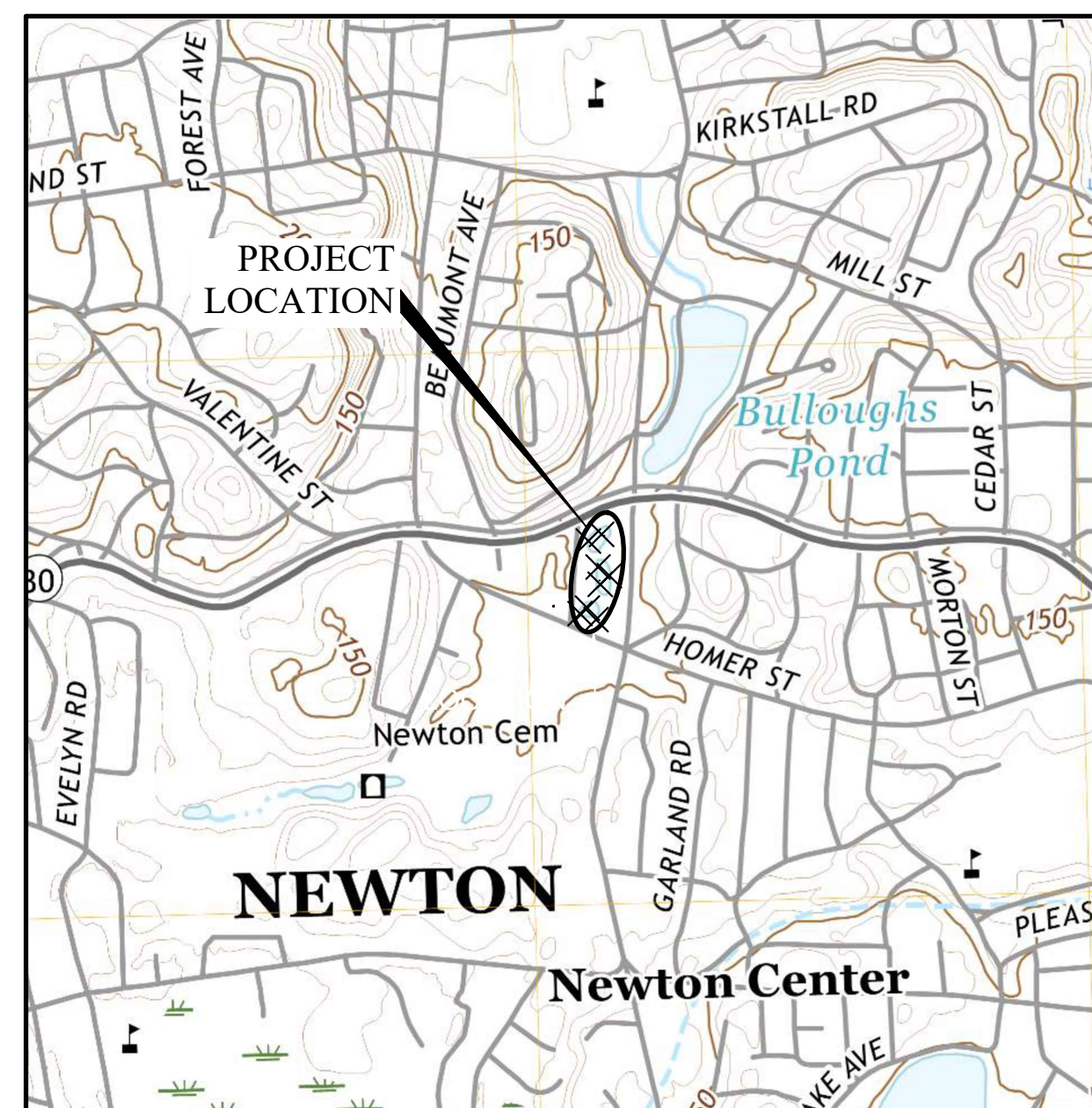
September, 2020

Revised March, 2021

ISSUED FOR BIDDING OCTOBER 17, 2023

DRAWING LIST:

- COVER SHEET
- C-1 EXISTING CONDITIONS
- C-2 EXISTING POND BOTTOM CONTOURS AND SEDIMENT SAMPLING LOCATIONS
- C-3 ESTIMATED BOTTOM OF SEDIMENT CONTOURS
- C-4 REPRESENTATIVE POND CROSS SECTIONS
- C-5 POND PROFILES
- C-6 EROSION AND SEDIMENT CONTROL & CONTROL OF WATER PLAN
- C-7 POND RESTORATION
- C-8 CULVERT CLEANING PLAN AND DETAILS
- S-1 EXISTING BRIDGE ABUTMENT CONDITIONS
- S-2 EXISTING ARCH BRIDGE ELEVATION AND SECTION
- S-3 BRIDGE ABUTMENT REPAIR DETAILS
- S-4 ARCH BRIDGE ABUTMENT/FOOTING REPAIR ELEVATION



N
LOCUS PLAN
CITY HALL PONDS
NEWTON, MASSACHUSETTS
U.S.G.S. Newton Quad
1" = 1000'

CITY OF NEWTON
DEPARTMENT OF PUBLIC WORKS

RUTHANNE FULLER, MAYOR

JAMES MCGONAGLE, COMMISSIONER OF PUBLIC WORKS



PREPARED FOR:

City of Newton Dept. of Public Works
1000 Commonwealth Avenue
Newton Centre, MA 02459

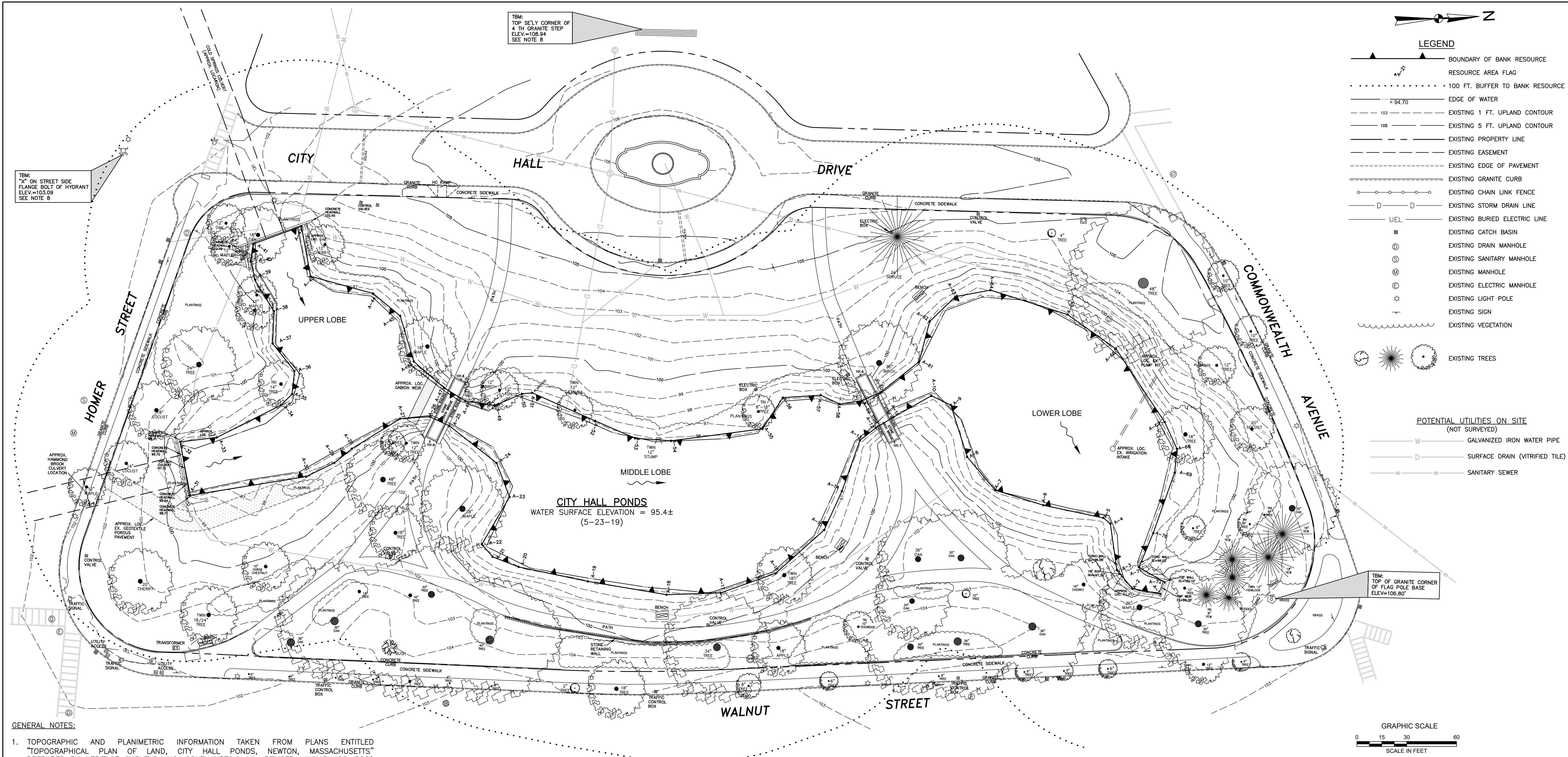
DESIGNER:

**GZA GeoEnvironmental, Inc.
Engineers and Scientists**
1350 Main Street, Suite 1400
Springfield, MA 01103
413-726-2100

DRAFT



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TBM: *X* ON STREET SIDE FLANGE BOLT OF HYDRANT ELEV.=103.09 SEE NOTE 8

TBM: TOP SE'LY CORNER OF 4 TH GRANITE STEP ELEV.=108.94 SEE NOTE 6

LEGEND

- ▲ BOUNDARY OF BANK RESOURCE
- ▬ RESOURCE AREA FLAG
- ⋯ 100 FT. BUFFER TO BANK RESOURCE
- x 94.70 EDGE OF WATER
- - - 103 EXISTING 1 FT. UPLAND CONTOUR
- - - 105 EXISTING 5 FT. UPLAND CONTOUR
- EXISTING PROPERTY LINE
- - - EXISTING EASEMENT
- - - EXISTING EDGE OF PAVEMENT
- EXISTING GRANITE CURB
- ○ ○ ○ ○ EXISTING CHAIN LINK FENCE
- D — D EXISTING STORM DRAIN LINE
- UEL EXISTING BURIED ELECTRIC LINE
- EXISTING CATCH BASIN
- ⊙ EXISTING DRAIN MANHOLE
- ⊙ EXISTING SANITARY MANHOLE
- ⊙ EXISTING MANHOLE
- ⊙ EXISTING ELECTRIC MANHOLE
- ⊙ EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING VEGETATION
- ○ ○ ○ ○ EXISTING TREES

POTENTIAL UTILITIES ON SITE (NOT SURVEYED)

- GALVANIZED IRON WATER PIPE
- SURFACE DRAIN (VITRIFIED TILE)
- SANITARY SEWER

- GENERAL NOTES:**
1. TOPOGRAPHIC AND PLANIMETRIC INFORMATION TAKEN FROM PLANS ENTITLED "TOPOGRAPHICAL PLAN OF LAND, CITY HALL PONDS, NEWTON, MASSACHUSETTS" PREPARED BY HERITAGE SURVEYS, INC. SOUTHAMPTON, MA, REVISED JANUARY 22, 2020 (2 SHEETS).
 2. BENCHMARK FOR SITE IS TOP OF GRANITE CORNER OF FLAG POLE BASE, AS SHOWN ON PLAN.
 3. BATHYMETRIC SURVEY OF POND BOTTOM COMPLETED BY GZA GEOENVIRONMENTAL, INC. (GZA) MAY 2019. PROBINGS USED TO ESTIMATE DEPTH TO BOTTOM OF SEDIMENT FROM SURVEY COMPLETED DECEMBER 2010 BY GZA.
 4. WETLAND RESOURCE DELINEATION CONDUCTED BY GZA ON DECEMBER 10, 2019.
 5. ESTIMATED IRRIGATION INTAKE PUMP PIT, GABION, CULVERT AND GEOGRID LOCATIONS TAKEN FROM "PLANS FOR THE RESTORATION OF LAUNDRY BROOK DRAINAGE SYSTEM INCLUDING BULLOUGH'S POND AND CITY HALL PONDS AND COLD SPRING & HAMMOND BROOK CULVERTS" BY BEC, INC. DATED JANUARY 1992 (AVAILABLE UPON REQUEST).
 6. POTENTIAL SEWER, STORM AND IRRIGATION SYSTEM LOCATIONS (NOT VERIFIED) TAKEN FROM PLAN ENTITLED "CITY OF NEWTON, MASSACHUSETTS", DATED OCTOBER 14, 1932, BY OLSTED BROTHERS LANDSCAPE ARCHITECTS, BROOKLINE, MA (AVAILABLE UPON REQUEST).
 7. SITE LOCATION: 1000 COMMONWEALTH AVE. MBL#: 64001 001.
 8. THE CITY SURVEYOR HAS INDICATED THAT TBM ELEVATION OF 106.80 IS EQUIVALENT TO ELEVATION 106.66 ON NEWTON CITY BASE.
 9. HORIZONTAL DATUM IS NAD83 MASSACHUSETTS STATE PLANE MASS MAINLAND COORDINATE SYSTEM.

NO.	ISSUE/DESCRIPTION	BY	DATE
4	ISSUED FOR BIDDING	JRB	10/17/23
3	ISSUED FOR BIDDING	JRB	10/13/22
2	ISSUED FOR WQC APPLICATION	JRB	3/23/21
1	MISC. NOTE CHANGES - REISSUED FOR NOI PERMITTING	JRB	11/17/20
0	ISSUED FOR PERMITTING	JRB	9/11/20

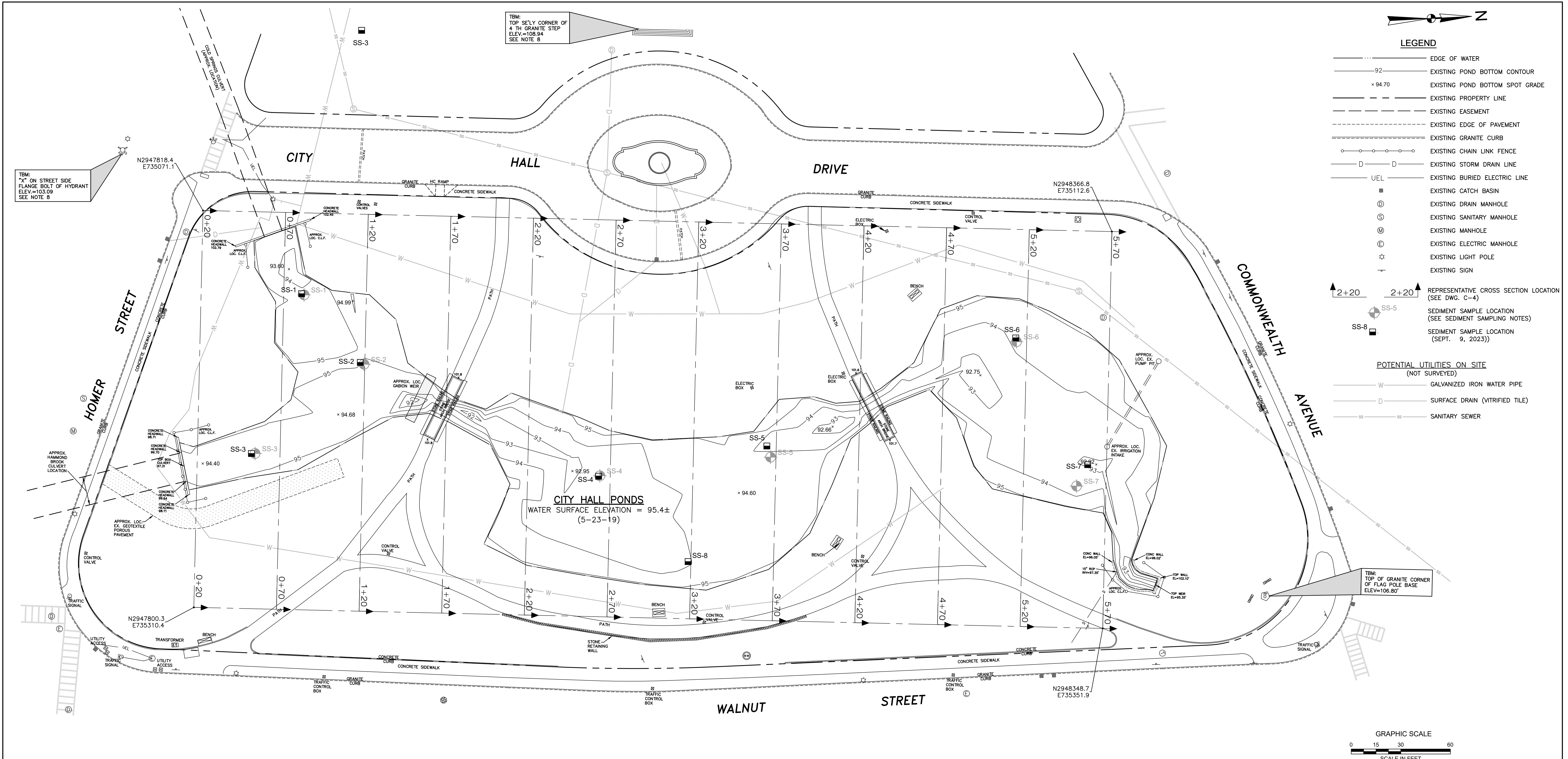
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**CITY HALL PONDS MAINTENANCE DREDGING PROJECT
NEWTON CENTRE, MASSACHUSETTS**

EXISTING CONDITIONS

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com	PREPARED FOR: CITY OF NEWTON DEPARTMENT OF PUBLIC WORKS 1000 COMMONWEALTH AVENUE NEWTON CENTRE, MA 02459
PROJ MGR: JRB DESIGNED BY: JRB DATE: SEPTEMBER, 2020	REVIEWED BY: TEJ DRAWN BY: EDM PROJECT NO. 15.0166758.00
CHECKED BY: SLL SCALE: 1"=30' REVISION NO. 3	DRAWING C-1

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- SEDIMENT SAMPLING NOTES (2019 SAMPLING):**
1. SEDIMENT SAMPLES SS-1 THROUGH SS-7 COLLECTED BY GZA GEOENVIRONMENTAL, INC. ON NOVEMBER 15, 2019.
 2. SEDIMENT SAMPLES SS-4 AND SS-5 WERE COMPOSITED INTO SAMPLE SS-4/5. SEDIMENT SAMPLES SS-6 AND SS-7 WERE COMPOSITED INTO SAMPLE SS-6/7.
- SEDIMENT SAMPLING NOTES (2023 SAMPLING):**
1. NEW SEDIMENT SAMPLES SS-1 THROUGH SS-8 COLLECTED BY GZA GEOENVIRONMENTAL, INC. ON AUGUST 9, 2023.
 2. ALL SAMPLES TAKEN WERE FULL DEPTH CORE SAMPLES, WITH SAMPLES COMPOSITED ALONG THE FULL LENGTH OF EACH CORE.
- GENERAL NOTES:**
1. POND BOTTOM CONTOURS BASED ON TOP OF SEDIMENT DURING 2019 BATHYMETRY SURVEY.
 2. ADDITIONAL SEDIMENT INFILL MAY HAVE OCCURRED SINCE 2019.

NO.	ISSUE/DESCRIPTION	BY	DATE
3	UPDATED SAMPLING INFORMATION/ISSUED FOR BIDDING	JRB	10/17/23
2	ISSUED FOR BIDDING	JRB	10/13/22
1	ISSUED FOR WOC APPLICATION	JRB	3/23/21
0	ISSUED FOR PERMITTING	JRB	9/11/20

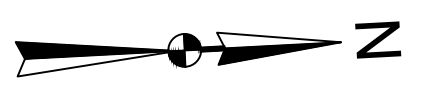
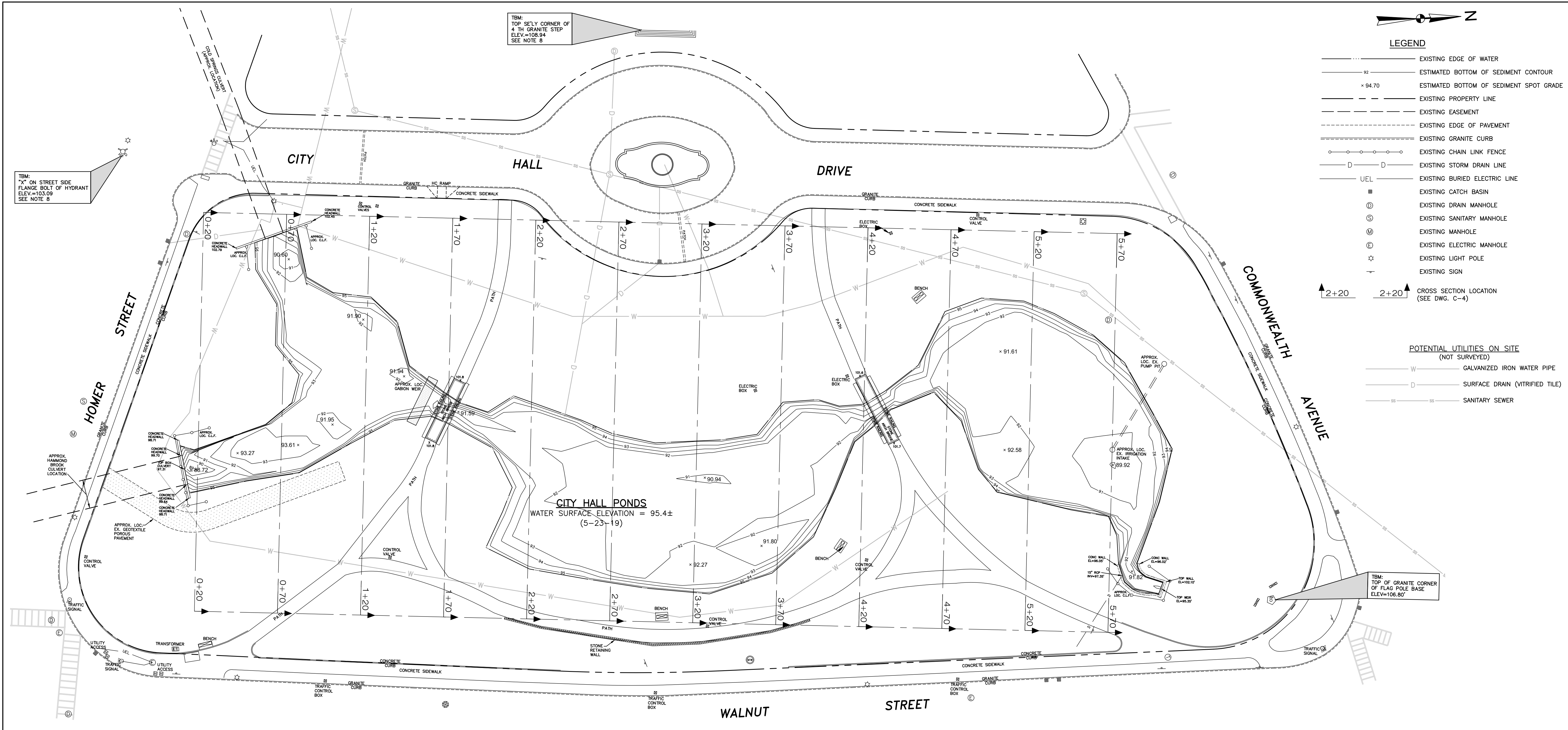
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**CITY HALL PONDS MAINTENANCE DREDGING PROJECT
NEWTON CENTRE, MASSACHUSETTS**

**EXISTING POND BOTTOM CONTOURS
AND SEDIMENT SAMPLING LOCATIONS**

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com	PREPARED FOR: CITY OF NEWTON DEPARTMENT OF PUBLIC WORKS 1000 COMMONWEALTH AVENUE NEWTON CENTRE, MA 02459
PROJ MGR: JRB DESIGNED BY: JRB DATE: SEPTEMBER, 2020	REVIEWED BY: TEJ DRAWN BY: EDM PROJECT NO. 15.0166758.00
CHECKED BY: SLL SCALE: 1"=30' REVISION NO. 2	DRAWING C-2

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LEGEND

- EXISTING EDGE OF WATER
- - - - ESTIMATED BOTTOM OF SEDIMENT CONTOUR
- × 94.70 ESTIMATED BOTTOM OF SEDIMENT SPOT GRADE
- - - - EXISTING PROPERTY LINE
- - - - EXISTING EASEMENT
- - - - EXISTING EDGE OF PAVEMENT
- - - - EXISTING GRANITE CURB
- - - - EXISTING CHAIN LINK FENCE
- - - - EXISTING STORM DRAIN LINE
- - - - UEL EXISTING BURIED ELECTRIC LINE
- EXISTING CATCH BASIN
- ⊙ EXISTING DRAIN MANHOLE
- ⊙ EXISTING SANITARY MANHOLE
- ⊙ EXISTING MANHOLE
- ⊙ EXISTING ELECTRIC MANHOLE
- ⊙ EXISTING LIGHT POLE
- ⊙ EXISTING SIGN
- ▲ 2+20 CROSS SECTION LOCATION (SEE DWG. C-4)

POTENTIAL UTILITIES ON SITE (NOT SURVEYED)

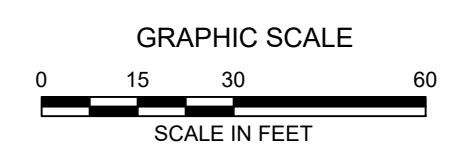
- W GALVANIZED IRON WATER PIPE
- D SURFACE DRAIN (VITRIFIED TILE)
- SS SANITARY SEWER

TBM: * ON STREET SIDE FLANGE BOLT OF HYDRANT ELEV.=103.09 SEE NOTE 8

TBM: TOP SE'LY CORNER OF 4 TH GRANITE STEP ELEV.=108.94 SEE NOTE 8

TBM: TOP OF GRANITE CORNER OF FLAG POLE BASE ELEV.=106.80'

CITY HALL PONDS
WATER SURFACE ELEVATION = 95.4±
(5-23-19)



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2	ISSUED FOR BIDDING	JRB	10/13/22
1	ISSUED FOR WQC APPLICATION	JRB	3/23/21
0	ISSUED FOR PERMITTING	JRB	9/11/20

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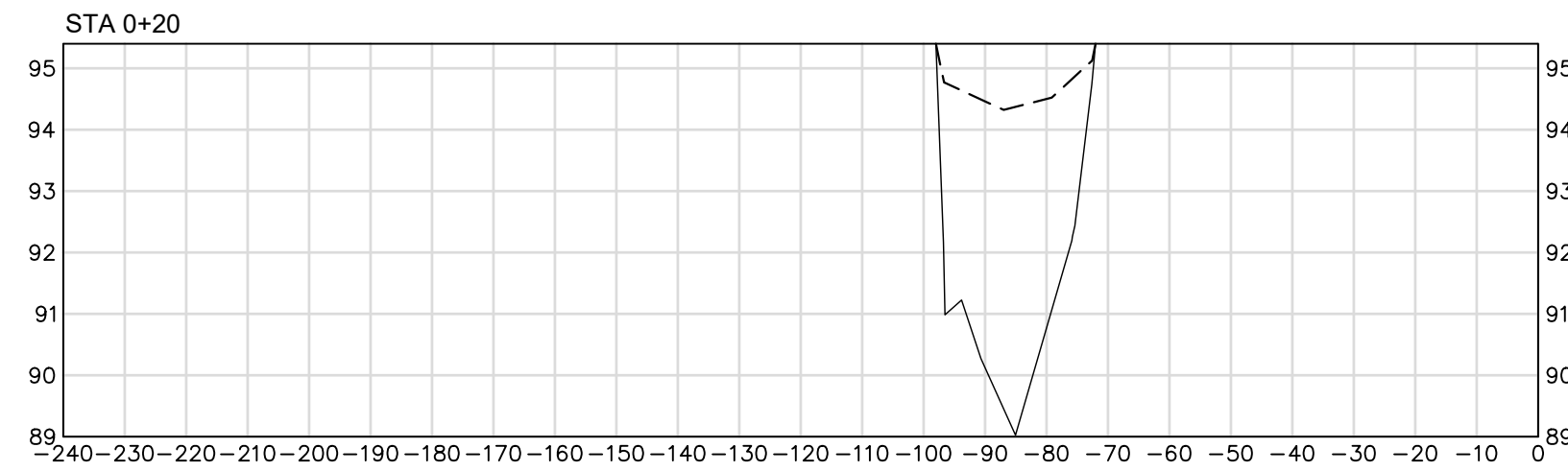
**CITY HALL PONDS MAINTENANCE DREDGING PROJECT
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ESTIMATED BOTTOM OF SEDIMENT CONTOURS

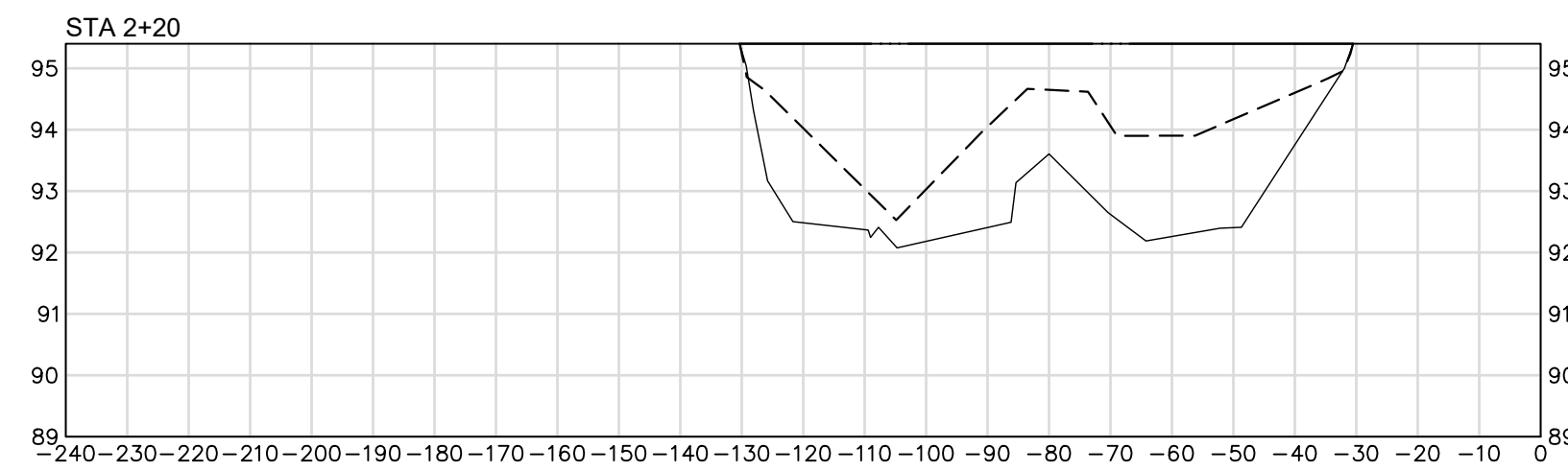
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PROJ MGR: JRB DESIGNED BY: JRB DATE: SEPTEMBER, 2020	REVIEWED BY: TEJ DRAWN BY: EDM PROJECT NO. 15.0166758.00
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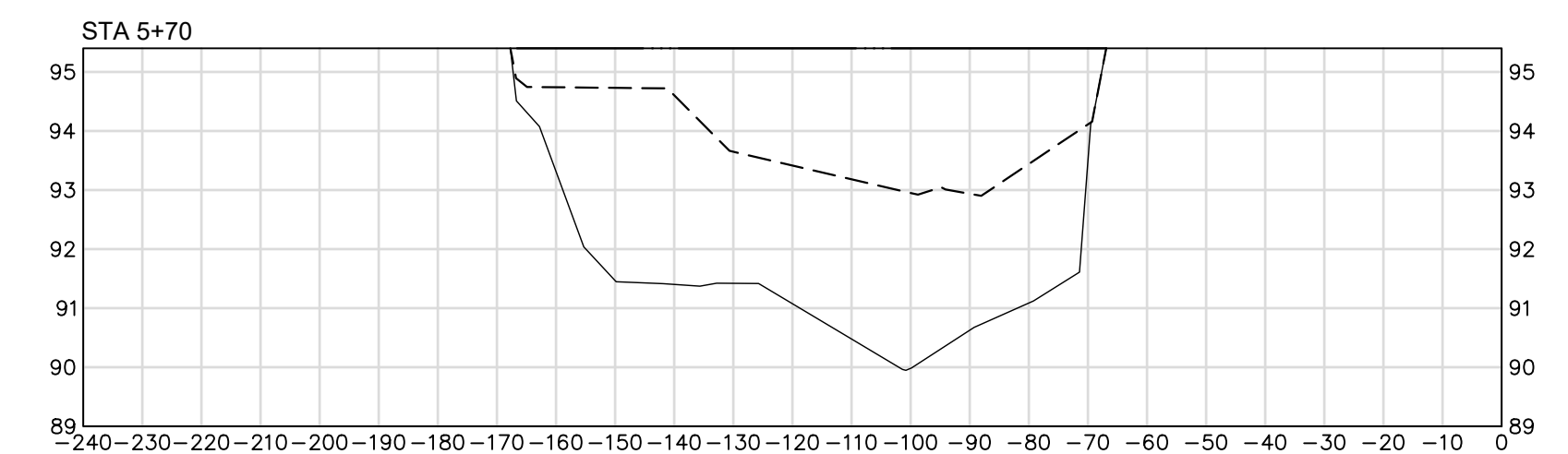
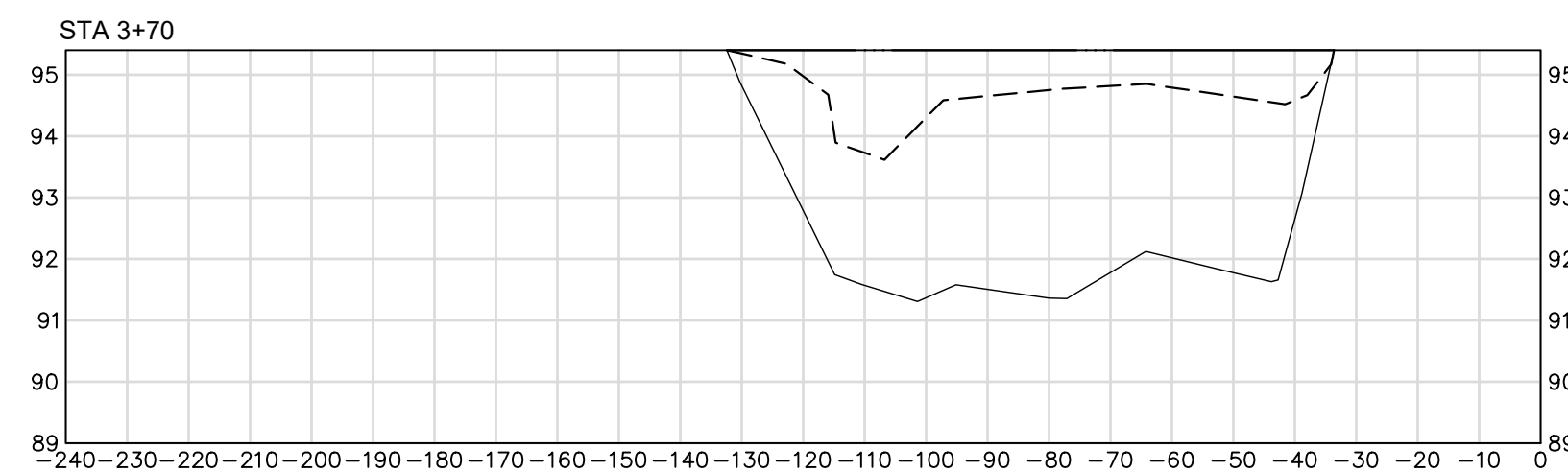
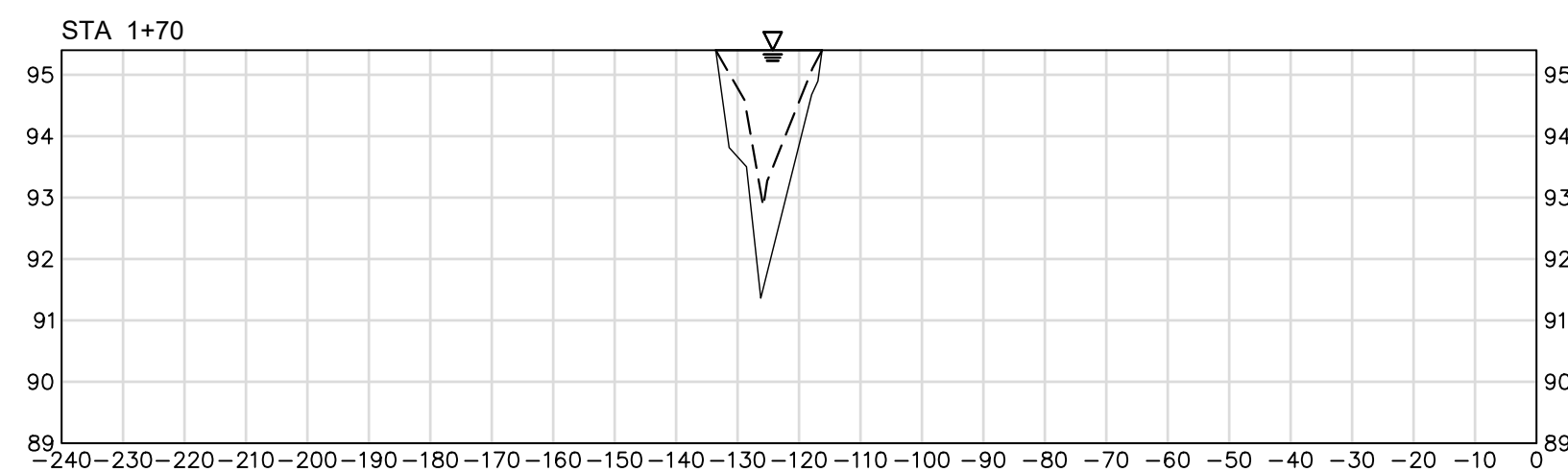
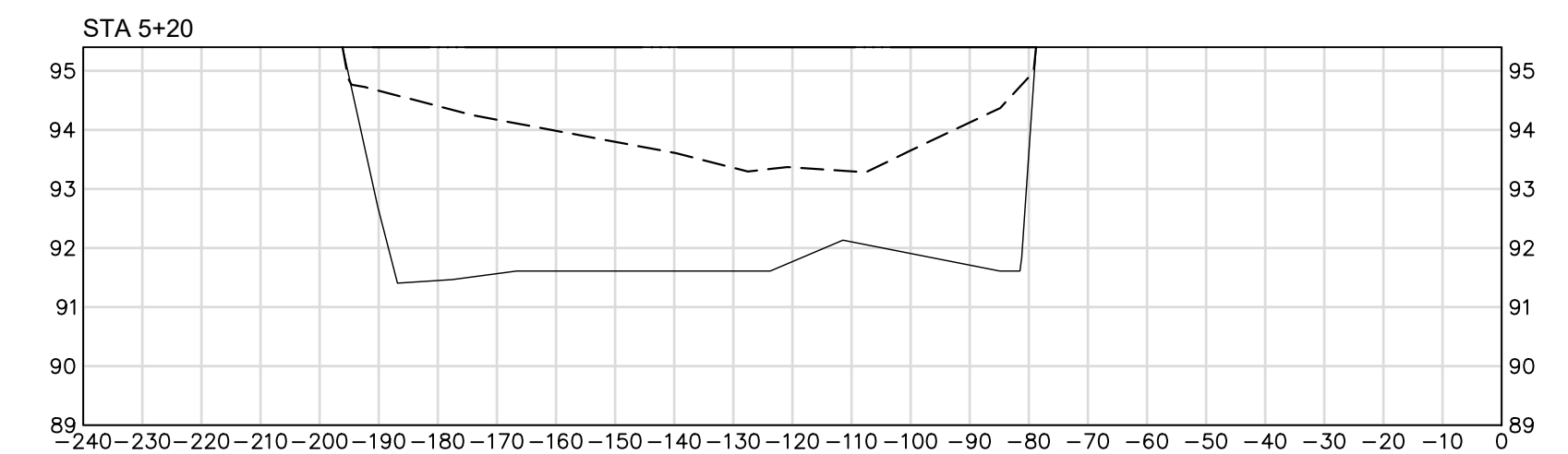
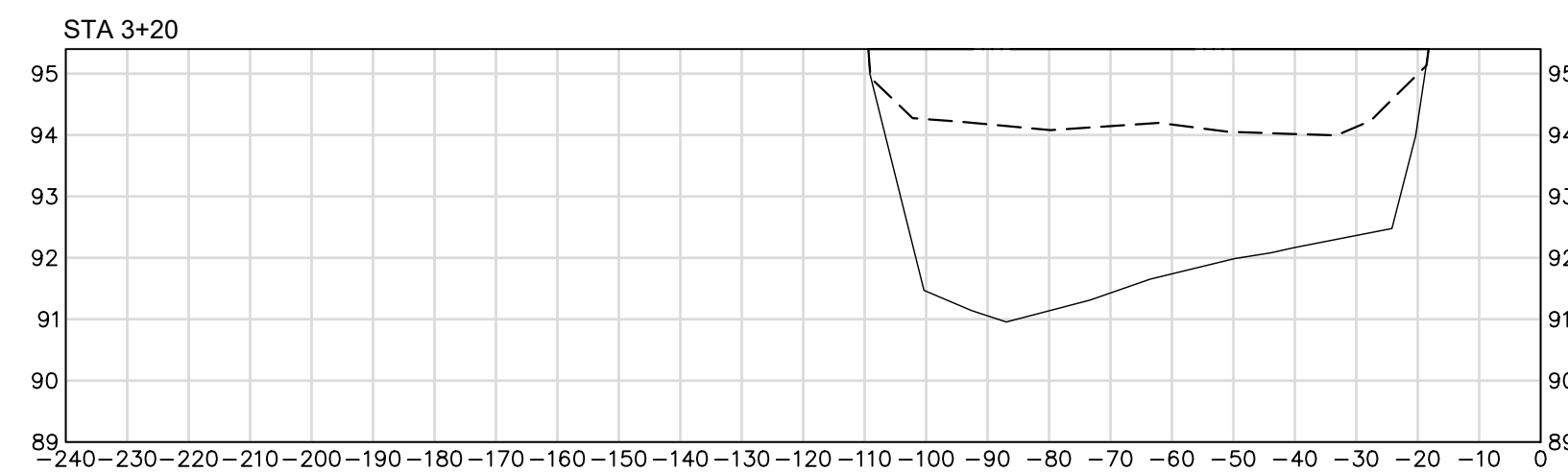
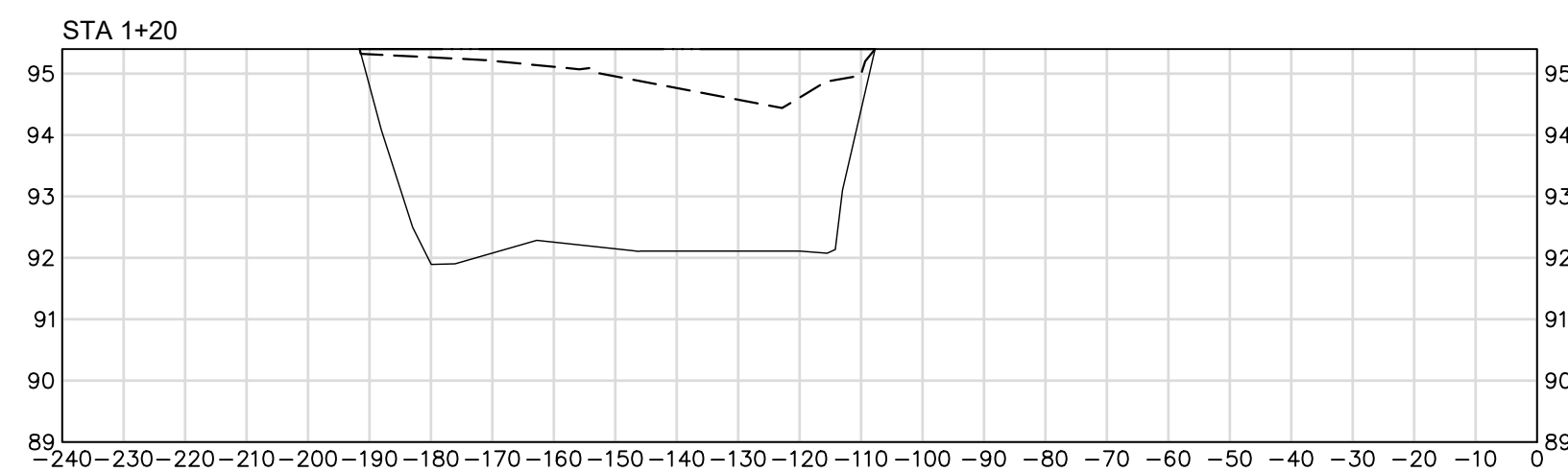
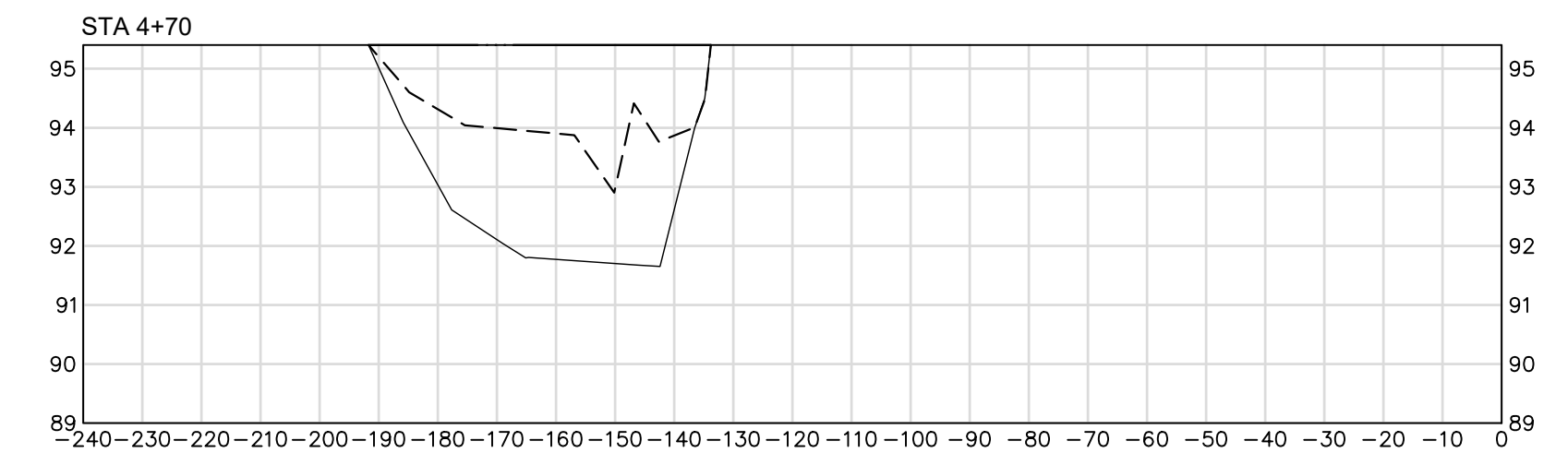
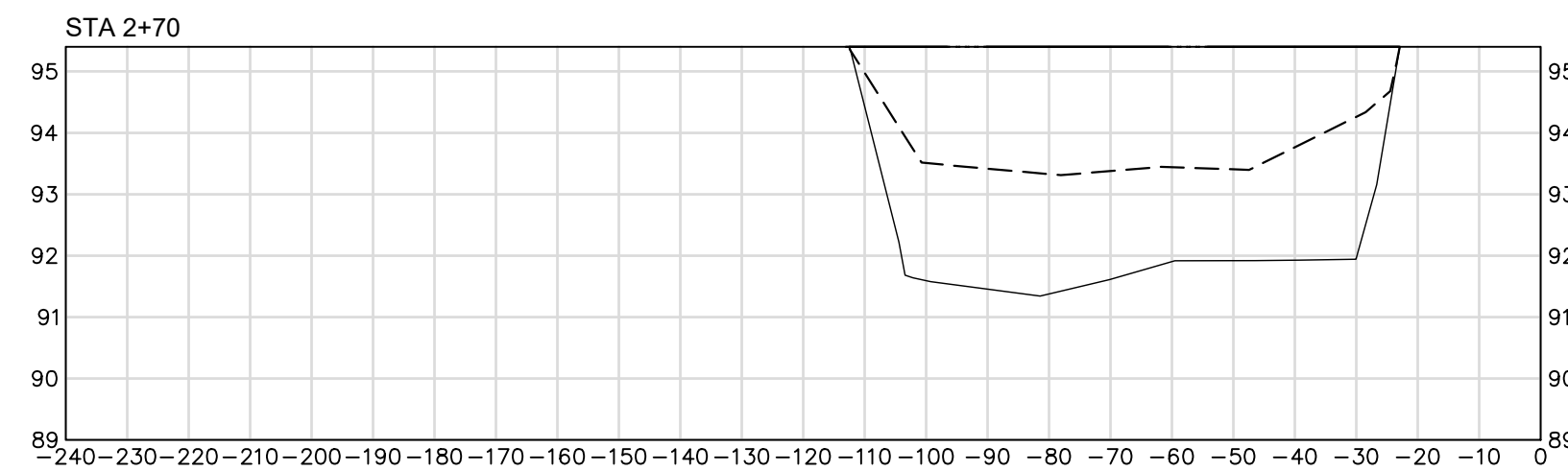
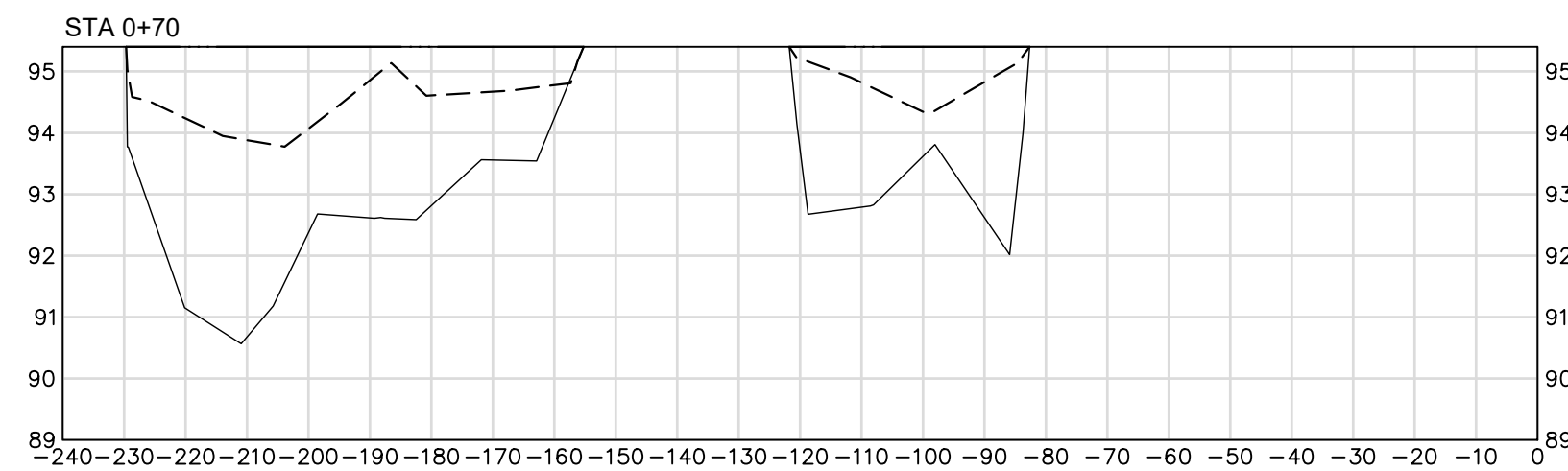
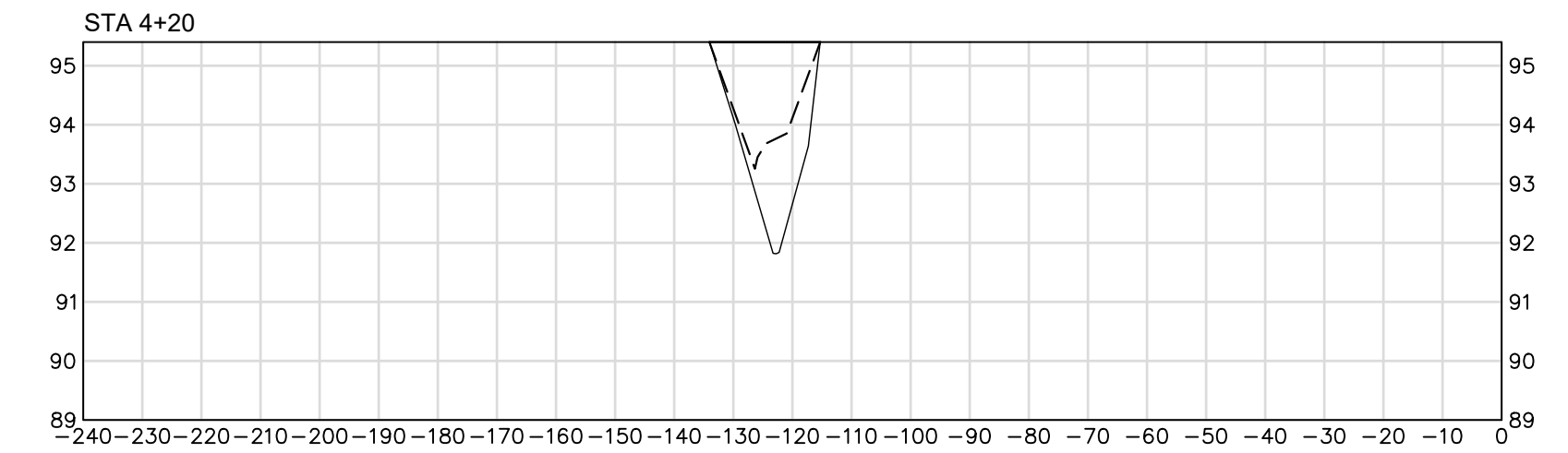
UPPER LOBE



MIDDLE LOBE



LOWER LOBE



APPROXIMATE SEDIMENT VOLUMES: 800 CY

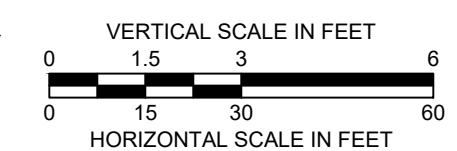
1,370 CY

1,100 CY

APPROXIMATE TOTAL SEDIMENT VOLUME (2019): 3,600 CY
(INCLUDING 330 CY IN INLET CULVERTS)

LEGEND

- W.S.E.=95.4± WATER SURFACE ELEVATION (5/23/19)
- EXISTING POND BOTTOM (5/2019)
- PROPOSED/ORIGINAL POND BOTTOM (12/2010)



3	ISSUED FOR BIDDING	JRB	10/17/23
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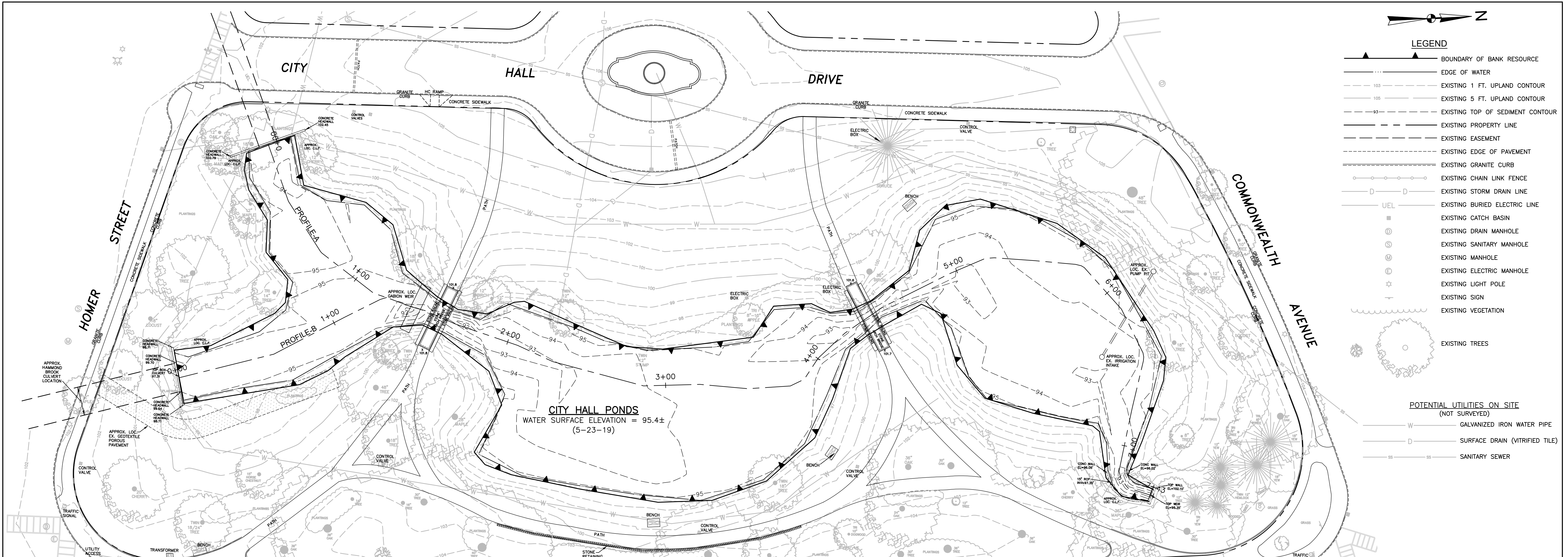
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**CITY HALL PONDS MAINTENANCE DREDGING PROJECT
NEWTON CENTRE, MASSACHUSETTS**

REPRESENTATIVE POND CROSS SECTIONS

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PROJ MGR: JRB DESIGNED BY: JRB DATE: SEPTEMBER, 2020	REVIEWED BY: TEJ DRAWN BY: EDM PROJECT NO. 15.0166758.00	CHECKED BY: SLL SCALE: 1"=30' REVISION NO. 2	DRAWING C-4

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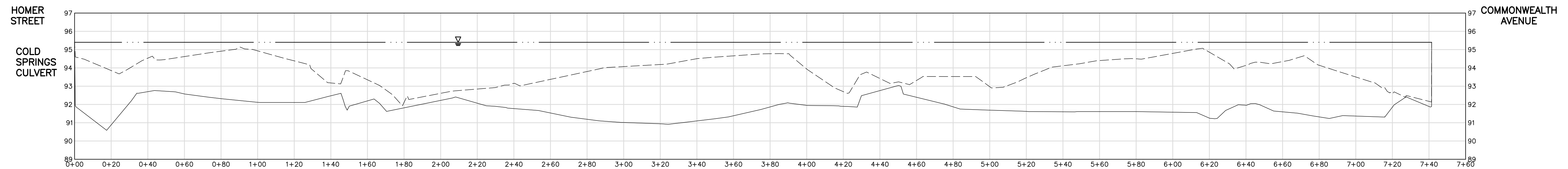
LEGEND

- BOUNDARY OF BANK RESOURCE
- EDGE OF WATER
- EXISTING 1 FT. UPLAND CONTOUR
- EXISTING 5 FT. UPLAND CONTOUR
- EXISTING TOP OF SEDIMENT CONTOUR
- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING EDGE OF PAVEMENT
- EXISTING GRANITE CURB
- EXISTING CHAIN LINK FENCE
- EXISTING STORM DRAIN LINE
- UEL
- EXISTING BURIED ELECTRIC LINE
- EXISTING CATCH BASIN
- EXISTING DRAIN MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING MANHOLE
- EXISTING ELECTRIC MANHOLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING VEGETATION
- EXISTING TREES

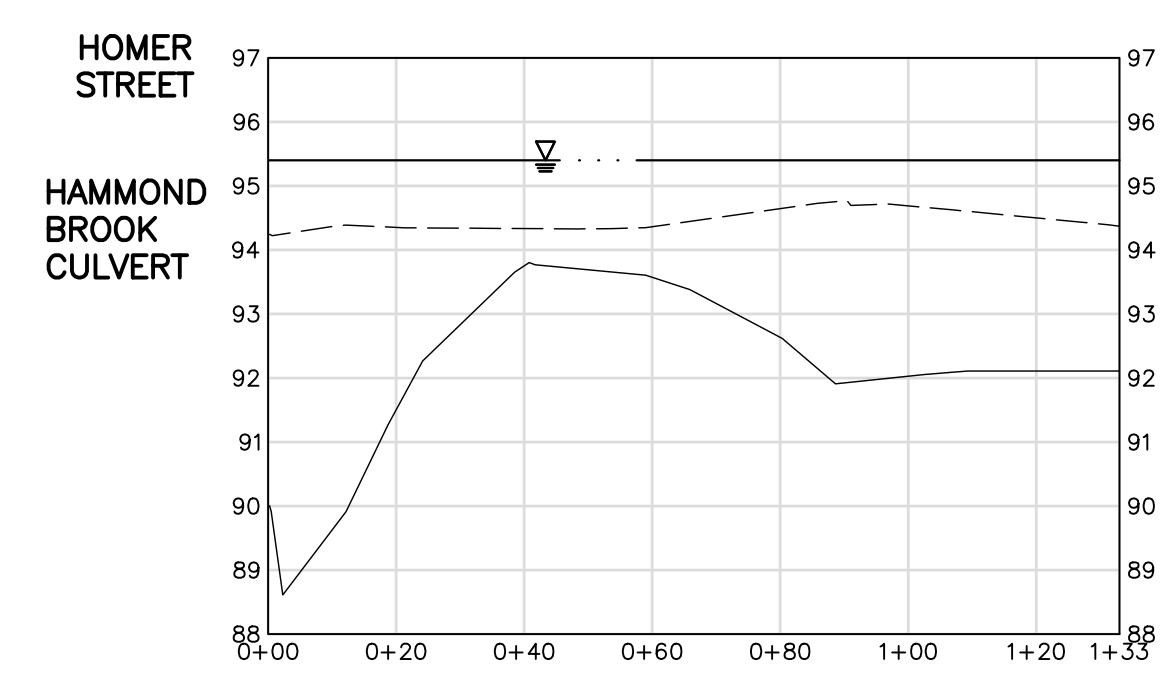
POTENTIAL UTILITIES ON SITE (NOT SURVEYED)

- GALVANIZED IRON WATER PIPE
- SURFACE DRAIN (VITRIFIED TILE)
- SANITARY SEWER

PLAN VIEW
1"=30'
GRAPHIC SCALE
SCALE IN FEET



PROFILE-A
VERT. 1"=3'
HOR. 1"=30'
GRAPHIC SCALE
VERTICAL SCALE IN FEET
SCALE IN FEET



PROFILE-B
VERT. 1"=3'
HOR. 1"=30'
GRAPHIC SCALE
VERTICAL SCALE IN FEET
SCALE IN FEET

LEGEND

- W.S.E. = 95.4± (5-23-19)
- TOP OF SEDIMENT
- BOTTOM OF SEDIMENT

NOTE:
1. BATHYMETRIC SURVEY OF POND BOTTOM COMPLETED BY GZA GEOENVIRONMENTAL, INC. (GZA) MAY 2019. PROBINGS USED TO ESTIMATE DEPTH TO BOTTOM OF SEDIMENT FROM SURVEY COMPLETED DECEMBER 2010 BY GZA.

3	ISSUED FOR BIDDING	JRB	10/17/23
2	ISSUED FOR BIDDING	JRB	10/13/22
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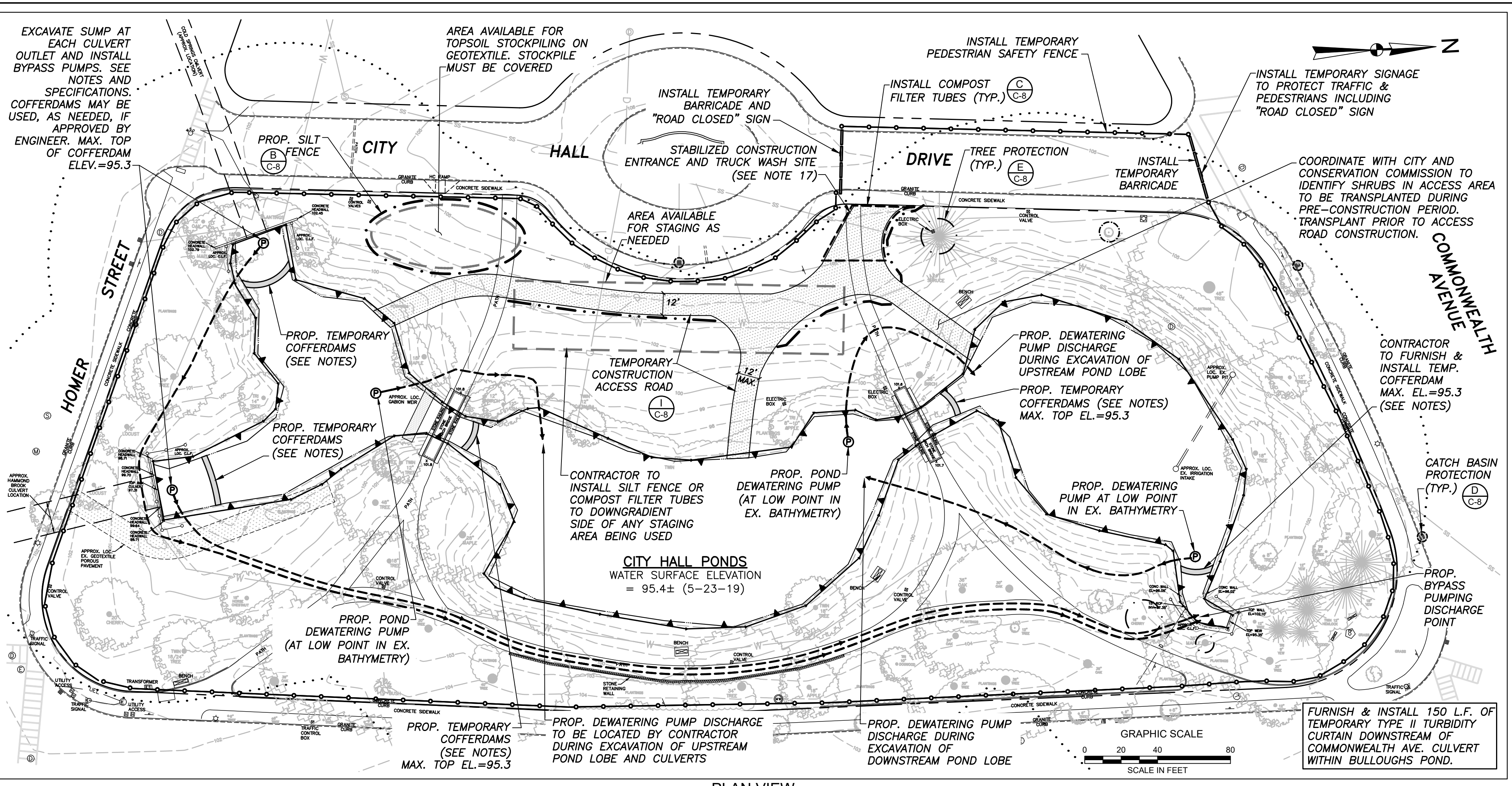
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POND PROFILES

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PROJ MGR: JRB	DESIGNED BY: JRB	REVIEWED BY: TEJ	DRAWN BY: EDM	CHECKED BY: SLL	DRAWING C-5
DATE: SEPTEMBER, 2020	PROJECT NO. 15.0166758.00	SCALE: 1"=30'	REVISION NO. 2		

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 CAD(DWG)758.00-CZA



PLAN VIEW
1"=40'

SEDIMENT AND EROSION CONTROL NOTES:

- SEDIMENT BASINS AND TRAPS, PERIMETER BERMS, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT (TURBIDITY CURTAIN) SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
- THE CONTRACTOR SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE SEDIMENT AND EROSION CONTROL PLAN PRIOR TO BEGINNING ANY OTHER LAND DISTURBANCES. SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES, AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURES UNTIL THE AREAS DRAINING TO THEM ARE FINAL STABILIZED. THE CONTRACTOR SHALL INSPECT DAILY AND MAINTAIN CONTINUOUSLY IN EFFECTIVE OPERATING CONDITION ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIME AS THEY ARE REMOVED. CONDUCT INSPECTIONS AND REPORTING IN ACCORDANCE WITH ALL PERMITS.
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES (BMPs) TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION. THE CONTRACTOR SHALL INSTALL AND MAINTAIN, AT NO ADDITIONAL COST TO THE OWNER, ANY ADDITIONAL EROSION CONTROL MEASURES DEEMED NECESSARY FOR PERMIT COMPLIANCE BY THE CONTRACTOR, THE OWNER AND/OR THEIR REPRESENTATIVES, OR BY FEDERAL/STATE/LOCAL GOVERNMENT INSPECTORS.
- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH APPLICABLE PUBLISHED STANDARDS AND SPECIFICATIONS AND THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS: A GUIDE FOR PLANNERS, DESIGNERS, AND MUNICIPAL OFFICIALS" (MA DEP, MAY 2003).
- A CONSTRUCTION ENTRANCE FOR THIS PROJECT IS MANDATORY TO PREVENT TRACKING OF SEDIMENT ONTO PUBLIC THOROUGHFARES. THE CONTRACTOR SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO TRAVERSED PUBLIC THOROUGHFARES. ALL MATERIALS DEPOSITED ONTO PUBLIC THOROUGHFARES SHALL BE REMOVED IMMEDIATELY.
- ALL SEDIMENT BASINS, TRAP EMBANKMENTS, SWALES, PERIMETER DIKES, AND PERMANENT SLOPES STEEPER OR EQUAL TO 3:1 SHALL BE STABILIZED WITH LOAM AND SOD, OR OTHER APPROVED STABILIZATION MEASURES, COMMENCING IMMEDIATELY WHEN WORK IS COMPLETE AND COMPLETING THE WORK WITHIN 14 CALENDAR DAYS OF INITIATION OR 7 DAYS IF THE TOTAL AREA DISTURBED ON-SITE IS MORE THAN 5 ACRES AT ANY TIME OR IF THE SITE HAS DISCHARGES TO SEDIMENT OR NUTRIENT IMPAIRED WATERS OR TO A TIER 2, 2.5, OR 3 WATER, AS DISCUSSED IN THE SWPPP. NO AREAS OUTSIDE OF THE PERIMETER SEDIMENT CONTROL BARRIER OR LIMIT OF WORK SHALL BE DISTURBED.
- THE CONTRACTOR SHALL APPLY LOAM AND SOD, OR OTHER APPROVED STABILIZATION MEASURES TO ALL UPLAND LAWN DISTURBED AREAS IMMEDIATELY UPON CESSATION OF ACTIVITY AND SHALL COMPLETE THE EFFORT WITHIN 14 CALENDAR DAYS AFTER STRIPPING AND GRADING ACTIVITIES HAVE CEASED ON THAT AREA, UNLESS SHORTER TIMELINES APPLY TO THE SITE DUE TO THE ITEMS INDICATED IN #6 ABOVE (LARGER AREAS OF DISTURBANCE, DISCHARGES TO IMPAIRED OR HIGH QUALITY WATERS, ETC.). MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION.
- TEMPORARY STOCKPILES WHICH HAVE NOT BEEN USED FOR 14 CALENDAR DAYS, SHALL BE TEMPORARILY STABILIZED THROUGH THE APPLICATION OF SEED AND MULCH, OR OTHER APPROVED STABILIZATION MEASURES.
- ALL CATCH BASINS OR OTHER DRAIN INLETS WHICH MAY RECEIVE STORMWATER FROM DISTURBED AREAS SHALL BE PROVIDED WITH SUITABLE INLET PROTECTION CONSISTING OF AN OPEN-TOP FILTER FABRIC BAG THAT IS DESIGNED TO HANG UNDERNEATH A STORM GRATE TO FILTER SEDIMENT-LADEN STORMWATER.
- EFFLUENT FROM DEWATERING OPERATIONS SHALL BE DIRECTED TO FIBER MATS, NETTING, RIPRAP, OR NATURALLY OCCURRING COVER TO MINIMIZE EROSION FROM DISCHARGE VELOCITY DURING WORK IN ALL THREE POND LOBES. EFFLUENT FROM DEWATERING OPERATIONS BEING DISCHARGED TO AREAS WHICH HAVE ALREADY BEEN DREDGED SHALL BE PUMPED EITHER TO SEDIMENT TANKS, SEDIMENT BAGS, AND/OR SEDIMENT TRAPS FOR SEDIMENT REMOVAL PRIOR TO DISCHARGE. DEWATERING SHALL BE PERFORMED IN ACCORDANCE WITH THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS: A GUIDE FOR PLANNERS, DESIGNERS, AND MUNICIPAL OFFICIALS" AND IN A MANNER THAT DOES NOT ADVERSELY AFFECT AREAS OUTSIDE OF THE LIMIT OF WORK.
- TEMPORARY SEDIMENT TRAP(S) SHALL BE CLEANED OUT AND RESTORED TO ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A POINT ONE HALF (1/2) THE DEPTH BETWEEN THE OUTLET CREST AND THE BOTTOM OF THE TRAP.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING, CALCIUM CHLORIDE, OR OTHER EFFECTIVE MEANS OF CONTROL.
- ALL WASTE MATERIALS GENERATED AT THE SITE SHALL BE IMMEDIATELY REMOVED AND DISPOSED OF OR STORED IN A SECURELY-COVERED CONTAINER IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS. CONTAINER SHALL BE EMPTIED ON A REGULAR BASIS AND AS NECESSARY. NO CONSTRUCTION WASTE OR DEBRIS SHALL BE BURIED ON-SITE.
- FOR FINISHED GRADING, THE CONTRACTOR SHALL PROVIDE ADEQUATE GRADIENTS SO AS TO PREVENT WATER FROM STANDING ON THE SURFACE OF LAWNS MORE THAN 24 HOURS AFTER THE END OF A RAINFALL, EXCEPT IN DESIGNATED DRAINAGE COURSES AND SWALE FLOW AREAS WHICH MAY DRAIN AS LONG AS 48 HOURS AFTER THE END OF A RAINFALL, AND PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS OR OPENINGS.
- PRIOR TO REMOVAL OF SEDIMENT CONTROL MEASURES THE CONTRACTOR SHALL STABILIZE ALL CONTRIBUTORY DISTURBED LAWN AREAS USING LOAM AND SOD. AREAS BROUGHT TO FINISHED GRADE DURING THE GROWING SEASON SHALL BE PERMANENTLY STABILIZED IMMEDIATELY WITH EFFORTS COMPLETED WITHIN 14 CALENDAR DAYS OF ESTABLISHMENT UNLESS MORE STRINGENT STABILIZATION DEADLINES APPLY TO THE SITE, AS DISCUSSED IN THE SWPPP. WHEN PROPERTY IS BROUGHT TO FINISHED GRADE DURING THE MONTHS WHEN PERMANENT STABILIZATION IS FOUND TO BE IMPRACTICAL, AN APPROVED TEMPORARY SEED AND STRAW ANCHORED MULCH OR OTHER ACCEPTABLE MEANS SHALL BE APPLIED TO DISTURBED AREAS, WITH FINAL STABILIZATION WITH SOD IN SPRING.
- TEMPORARY SEDIMENT CONTROL DEVICES SHALL BE REMOVED WITHIN (30) CALENDAR DAYS FOLLOWING ESTABLISHMENT OF PERMANENT STABILIZATION IN ALL CONTRIBUTORY DRAINAGE AREAS. STORMWATER MANAGEMENT STRUCTURES USED TEMPORARILY FOR SEDIMENT CONTROL SHALL BE CLEANED AND CONVERTED TO THEIR PERMANENT CONFIGURATION WITHIN THIS TIME PERIOD AS WELL. ALL STORM DRAINAGE STRUCTURES, SUMPS, AND PIPES SHALL BE CLEANED OF ALL SEDIMENTS PRIOR TO FINAL PAYMENT.
- CONTRACTOR SHALL ESTABLISH "TRUCK WASH SITES" TO PROVIDE LOCATIONS FOR TRUCK TIRE RINSING TO PREVENT/REDUCE SEDIMENT TRACKING ONTO PAVED ROADWAYS. WASH SITES SHALL INCLUDE EFFECTIVE WHEEL WASHER SYSTEMS / RACKS AND SHALL USE PRESSURE-SPRAYED WATER TO REMOVE MUD, SOIL, AND ROCK FROM VEHICLES EXITING THE SITE. CONTRACTOR SHALL PROVIDE DESIGN, SETUP, MAINTENANCE, AND OPERATION OF RINSE STATIONS IN ACCORDANCE WITH THE PROJECT SWPPP, NPDES CGP, AND ALL OTHER PERMITS. NO SOAPS, DETERGENTS, OR SOLVENTS SHALL BE USED. DESIGN AND OPERATION OF WASH SITES SHALL ENSURE THAT DRAINAGE FROM THE WHEEL WASH AREAS LEADS TO A TRAP, SILT FENCE, OR OTHER BMP FOR SETTLING. IN ADDITION, STREET SWEEPING SHALL BE CONDUCTED AS NEEDED TO IMMEDIATELY REMOVE ANY SEDIMENT FROM ROADWAY SURFACES.

PROPOSED POND DEWATERING METHODS AND SEQUENCE:

- PHASE I**
STEP IA. CONDUCT INITIAL DEWATERING OF CITY HALL PONDS BY INSTALLATION OF PUMP IN LOWER LOBE OF CITY HALL PONDS AND DECANTING CLEAN WATER FROM ABOVE LEVEL OF SEDIMENTS IN ALL THREE LOBES. TURBID WATER AND SEDIMENTS SHALL NOT BE DISCHARGED DOWNSTREAM DURING THIS PROCESS.
STEP IB. EXCAVATE SUMPS AT THE TWO CULVERT OUTLETS INTO THE POND. SUMPS SHALL BE LINED WITH GEOTEXTILE FABRIC AND WASHED STONE. CONSTRUCT COFFERDAMS AT THESE LOCATIONS, WITH MAXIMUM ELEVATION = 95.3 FT.
STEP IC. INSTALL COFFERDAM AT DOWNSTREAM END OF POND, IN APPROXIMATE LOCATION SHOWN ON PLANS. ELEVATION OF COFFERDAM SHALL NOT EXCEED 95.3 FT. CONTRACTOR MAY SELECT COFFERDAM MATERIALS TO BE ACCEPTED BY ENGINEER. INSTALL HAMMOND BROOK AND COLD SPRINGS CULVERT BYPASS PUMPS AND BEGIN PUMPING CLEAR WATER TO THE PROPOSED OUTLET POINT PRIOR TO THE POND OUTLET.
- PHASE II**
STEP IIA. DURING A DRY WEATHER PERIOD, EXCAVATE SEDIMENTS FROM WITHIN THE HAMMOND BROOK AND COLD SPRINGS CULVERTS. DURING THE PERIOD OF SEDIMENT EXCAVATION FROM EACH CULVERT, FLOWS FROM THAT CULVERT WILL BE REDIRECTED TO THE POND BASIN AREA RATHER THAN THE DOWNSTREAM DISCHARGE POINT, TO PREVENT MOBILIZATION OF SEDIMENTS DOWNSTREAM DURING CULVERT EXCAVATION. ONCE CULVERT CLEANING IS COMPLETED AND REVIEWED BY THE ENGINEER, BYPASS PUMPING MAY RESTART FROM THAT CULVERT.
STEP IIB. WITH BYPASS PUMPS AND DOWNSTREAM COFFERDAM IN PLACE, CONTRACTOR SHALL CONTINUE TO DEWATER THE POND LOBES AS NEEDED THROUGHOUT THE CONSTRUCTION PERIOD BY INSTALLING POND DEWATERING PUMPS IN THE THREE LOBES AS EXCAVATION PROGRESSES, AS DESCRIBED IN THE FOLLOWING SUGGESTED SEQUENCE. DEWATERING PUMPS WITHIN THE POND SHALL BE SET IN SUMPS LINED WITH GEOTEXTILE FABRIC AND SURROUNDED BY WASHED STONE. SUMPS SHALL NOT BE DEEPER THAN THE HISTORICAL POND BOTTOM OR THE EXTENTS SHOWN ON THE PLANS, WHICHEVER IS ENCOUNTERED FIRST. ALL WORK WITHIN THE POND SHOULD PROGRESS FROM UPSTREAM TO DOWNSTREAM.
STEP IIC. DURING THE PERIOD OF EXCAVATION OF SEDIMENTS FROM THE MOST DOWNSTREAM POND LOBE, DEWATERING PUMP DISCHARGES SHOULD BE DIRECTED TO THE MIDDLE POND LOBE AND PROVIDED WITH SEDIMENT CONTROLS (DEWATERING BAG ETC) TO PREVENT SEDIMENT FROM ENTERING PREVIOUSLY DREDGED AREA.
- PHASE III**
STEP IIIA. DURING THE PERIOD OF EXCAVATION OF SEDIMENTS FROM THE UPPER POND LOBE, DEWATERING PUMP DISCHARGES SHOULD BE DIRECTED TO THE NEXT DOWNSTREAM POND LOBE (THE MIDDLE LOBE) FOR SETTLING. TEMPORARY COFFERDAM MAY BE CONSTRUCTED NEAR THE MORE UPSTREAM PEDESTRIAN BRIDGE, IN A LOCATION SELECTED BY THE CONTRACTOR AND ACCEPTED BY THE ENGINEER.
STEP IIIB. DURING THE PERIOD OF EXCAVATION OF SEDIMENTS FROM THE MIDDLE POND LOBE, DEWATERING PUMP DISCHARGES SHOULD BE DIRECTED TO THE MOST DOWNSTREAM POND LOBE FOR SETTLING. TEMPORARY COFFERDAM MAY BE CONSTRUCTED NEAR THE MORE DOWNSTREAM PEDESTRIAN BRIDGE, IN A LOCATION SELECTED BY THE CONTRACTOR AND ACCEPTED BY THE ENGINEER.
STEP IIIC. DURING THE PERIOD OF EXCAVATION OF SEDIMENTS FROM THE MOST DOWNSTREAM POND LOBE, DEWATERING PUMP DISCHARGES SHOULD BE DIRECTED UPGRADIENT TO THE MIDDLE POND LOBE AND PROVIDED WITH SEDIMENT CONTROLS (DEWATERING BAG ETC) TO PREVENT SEDIMENT FROM ENTERING PREVIOUSLY DREDGED AREA.
- PHASE IV**
STEP IVA. CONTINUE DEWATERING USING THE POND DEWATERING PUMPS AND BYPASS PUMPS THROUGHOUT THE PROJECT.
STEP IVB. DURING DRY WEATHER, INFLOW TO THE POND WILL BE BYPASSED BY THE TWO BYPASS PUMPS. OTHER INFLOW WILL COLLECT IN LOW LYING AREAS. THE CONTRACTOR SHALL OPERATE THE POND DEWATERING PUMPS AS NEEDED TO PUMP FLOWS TO OTHER POND LOBES. NO DEWATERING PUMP DISCHARGE DIRECTLY TO DOWNSTREAM AREAS WILL BE ALLOWED. NO TURBID DISCHARGES TO THE POND OUTLET AND DOWNSTREAM AREAS WILL BE ALLOWED. ALL DISCHARGE REQUIREMENTS OF PROJECT PERMITS MUST BE MET.
STEP IVC. DURING WET WEATHER, THE CONTRACTOR SHALL MINIMIZE THE RISE OF WATER WITHIN THE POND BY CONTINUING TO BYPASS PUMP AND BY USING THE DEWATERING PUMPS. IF INCOMING FLOW EXCEEDS THE CONTRACTOR'S CAPACITY TO PUMP OR TO TREAT DEWATERING DISCHARGES, CONTRACTOR SHALL REMOVE EQUIPMENT AND MACHINERY FROM THE POND AND ALLOW FLOW TO REFILL THE POND AND TO PASS OVER THE COFFERDAM AND DOWNSTREAM.
STEP IVD. ALL MATERIALS USED IN THE CONSTRUCTION OF COFFERDAMS SHALL BE REMOVED AT THE END OF THE PROJECT. AREAS DISTURBED BY PUMPS, PIPELINES, ACCESS, AND OTHER MATERIALS ACTIVITIES ASSOCIATED WITH CONTROL OF WATER SHALL BE RESTORED TO PRECONSTRUCTION CONDITION OR BETTER AT THE END OF THE PROJECT.

LEGEND

- BOUNDARY OF BANK RESOURCE
 - 00 FT. BUFFER TO BANK RESOURCE
 - EDGE OF WATER
 - EXISTING 1 FT. UPLAND CONTOUR
 - EXISTING 5 FT. UPLAND CONTOUR
 - EXISTING PROPERTY LINE
 - EXISTING EASEMENT
 - EXISTING EDGE OF PAVEMENT
 - EXISTING GRANITE CURB
 - EXISTING CHAIN LINK FENCE
 - EXISTING STORM DRAIN LINE
 - EXISTING BURIED ELECTRIC LINE
 - EXISTING CATCH BASIN
 - EXISTING DRAIN MANHOLE
 - EXISTING SANITARY MANHOLE
 - EXISTING MANHOLE
 - EXISTING ELECTRIC MANHOLE
 - EXISTING LIGHT POLE
 - EXISTING SIGN
 - EXISTING VEGETATION
 - EXISTING TREES
 - PROPOSED SAFETY FENCE
 - PROPOSED SILT FENCE
 - PROPOSED FILTER SILT SOXX OR APPROVED EQUAL
 - CATCH BASIN PROTECTION
 - PROPOSED TREE PROTECTION
- POTENTIAL UTILITIES ON SITE (NOT SURVEYED)**
- GALVANIZED IRON WATER PIPE
 - SURFACE DRAIN (VITRIFIED TILE)
 - SANITARY SEWER

STORMWATER PERMIT NOTES:

- THIS PROJECT IS REGULATED UNDER THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY'S (EPA'S) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR DISCHARGES FROM CONSTRUCTION ACTIVITIES. OPERATORS OF SUCH CONSTRUCTION SITES MUST MEET THE REQUIREMENTS OF EPA'S CONSTRUCTION GENERAL PERMIT (CGP), PART OF THE CGP REQUIREMENTS IS THE PREPARATION OF A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE PROPOSED PROJECT. A SWPPP WILL BE PREPARED FOR THIS PROJECT AND WILL BE PROVIDED TO THE CONTRACTOR BY THE OWNER.
- UNDER THE CONTRACT FOR THE CONSTRUCTION OF THIS PROJECT, THE CONTRACTOR SHALL BE THE OWNER'S FULL AGENT IN THE IMPLEMENTATION AND MAINTENANCE OF THE SWPPP.
- TO OBTAIN COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT (CGP), A COMPLETE AND ACCURATE NOTICE OF INTENT (NOI) SHALL BE PREPARED ONLINE USING THE NET SYSTEM AND SUBMITTED TO THE ENVIRONMENTAL PROTECTION AGENCY (EPA) BY THE OWNER, THE CONTRACTOR, AND ANY APPLICABLE SUBCONTRACTORS.
- THE OWNER, CONTRACTOR, AND ALL APPLICABLE SUBCONTRACTORS ARE EQUALLY RESPONSIBLE FOR COMPLYING WITH THE TERMS OF THE CGP AND FOR THE EFFECTIVE IMPLEMENTATION OF THE SWPPP. EACH PARTY FILING A NOI WILL NEED TO ADD COMPANY CONTACT INFORMATION AND TO AMEND THE SWPPP AS SITE CONDITIONS WARRANT TO MEET REQUIRED PERMIT ELEMENTS. ALL PARTIES WILL ALSO NEED TO MAINTAIN THE SWPPP DOCUMENT, CONDUCT INSPECTIONS, UPGRADE AND MAINTAIN SEDIMENT AND EROSION CONTROLS AS NEEDED, AND MEET ALL PERMIT NOTICE OF INTENT (NOI) / NOTICE OF TERMINATION (NOT) REQUIREMENTS.
- EACH CONTRACTOR AND SUBCONTRACTOR THAT HAS OPERATIONAL CONTROL OVER THE CONSTRUCTION PLANS AND/OR SPECIFICATIONS MUST SIGN THE CONTRACTOR'S CERTIFICATION FORM INCLUDED IN THE SWPPP.
- IMPLEMENTATION OF THE SWPPP MUST BEGIN AT THE COMMENCEMENT OF CONSTRUCTION ACTIVITY AND MUST BE FULLY AND CONTINUOUSLY DOCUMENTED UNTIL FINAL STABILIZATION OF THE SITE IS COMPLETE AND A NOI IS FILED.
- A SIGN MUST BE VISIBLY POSTED AT THE SITE WHICH PROVIDES NOTICE OF THE CGP, THE NPDES PERMIT ID(S), A CONTACT NAME AND PHONE NUMBER FOR OBTAINING ADDITIONAL INFORMATION, AND THE ON-SITE LOCATION WHERE THE SWPPP IS STORED, AS WELL AS THE URL FOR THE SWPPP IF POSTED ONLINE. IN ADDITION, TWO STATEMENTS IDENTIFIED IN THE SWPPP REGARDING HOW TO OBTAIN MORE INFORMATION MUST BE POSTED IN THIS SIGNAGE.
- IT IS THE RESPONSIBILITY OF THE OWNER, CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS TO INDICATE CONSTRUCTION ACTIVITY SEQUENCING AND TIMING IN THE SWPPP.
- INSPECTION AND MAINTENANCE MUST BE PERFORMED REGULARLY FOR PERMIT COMPLIANCE, AND DOCUMENTATION OF INSPECTIONS AND MAINTENANCE MUST BE APPENDED TO THE SWPPP BY THE CONTRACTOR.
- WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION OPERATION, OR MAINTENANCE AT THE CONSTRUCTION SITE THAT HAS, OR COULD HAVE, A SIGNIFICANT EFFECT ON THE DISCHARGE OF STORMWATER POLLUTANTS, THE SWPPP MUST BE AMENDED BY THE CONTRACTOR.
- CONTRACTOR SHALL IDENTIFY THE LOCATIONS OF THE FOLLOWING ON THE SEDIMENT AND EROSION CONTROL (S&EC) PLANS AS WELL AS ANY OTHER REQUIRED PERMIT ELEMENTS NOT SHOWN ON THE PLANS AT THE TIME OF THEIR PREPARATION (SEE CGP PERMIT SECTION):
 - CONCRETE TRUCK WASHOUT AREAS (SEE SWPPP)
 - PORTABLE SANITARY UNITS (TOILETS)
 - FUEL TANKS
 - LIMITS OF STAGING AREAS & SOIL DISTURBANCE AREAS
 - WASTE CONTAINER LOCATIONS (E.G., DUMPSTERS)
 - CHEMICAL, MATERIAL, EQUIPMENT, & VEHICLE STORAGE AREAS
 - SOIL STOCKPILES & CONTROLS.
- IF ADDITIONAL CONTROLS OR BMPs ARE ADDED, THESE SHALL BE DEPICTED ON THE S&EC PLANS AND A DESCRIPTION ADDED TO THE SWPPP BY THE CONTRACTOR. THESE NEW CONTROLS SHALL BE ADDED TO THE WEEKLY INSPECTIONS AS WELL. CONTRACTOR SHALL IDENTIFY ON THE S&EC PLANS ALL AREAS THAT HAVE UNDERGONE FINAL STABILIZATION.
- UPON FINAL STABILIZATION, A NOTICE OF TERMINATION (NOT) MUST BE ELECTRONICALLY PREPARED AND SUBMITTED TO THE EPA BY ALL PARTIES WHO COMPLETED A NOI USING THE ONLINE NET SYSTEM.

NOTES:

- CONTRACTOR SHALL SUBMIT DETAILED DEWATERING PLAN, CONSTRUCTION SEQUENCE, AND SHOP DRAWINGS AND NARRATIVE DESCRIPTION OF ALL COFFERDAMS FOR ACCEPTANCE BY THE ENGINEER AND CONSERVATION COMMISSION PRIOR TO INITIATING ANY WORK ON-SITE. CONTRACTOR SHALL BE AWARE THAT THE POND HAS A 2.7± SQUARE MILE WATERSHED (ACCORDING TO CITY OF NEWTON GIS MAPPING - AVAILABLE UPON REQUEST) AND THAT FLOW THROUGH THE POND IS FLASHY IN NATURE DUE TO STORMWATER INPUTS. PUMPS WILL NEED TO BE SIZED BY THE CONTRACTOR TO HANDLE INFLOWS. FLOODING POTENTIAL EXISTS AND MUST BE CONSIDERED IN THE DEWATERING AND CONTROL OF WATER PLAN. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL OF WATER FOR THE DURATION OF CONSTRUCTION. ALL DAMAGE CAUSED BY WATER FLOW AT THE SITE IS THE RESPONSIBILITY OF THE CONTRACTOR, AT NO ADDITIONAL COST TO THE OWNER.
- TEMPORARY COFFERDAMS TO BE INSTALLED BY CONTRACTOR. COFFERDAMS MAY BE CONSTRUCTED OF SUPER SACKS (OR EQUAL), EARTHEN MATERIALS, SANDBAGS, OR OTHER MATERIALS ACCEPTED BY THE ENGINEER AND CONSERVATION COMMISSION. MAX. ELEVATIONS=95.3. TEMPORARY COFFERDAMS MUST BE IN PLACE DURING EXCAVATION OF POND LOBES.

5	ISSUED FOR BIDDING	JRB	10/17/23
4	NOTE MODIFICATIONS, ISSUED FOR BIDDING	JRB	10/13/22
3	ISSUED FOR WOC APPLICATION	JRB	3/23/21
2	CONSTRUCTION ACCESS ROAD MODIFICATIONS	JRB	11/18/20
1	MISC. NOTE CHANGES -- REISSUED FOR NOI PERMITTING	JRB	11/17/20
0	ISSUED FOR PERMITTING	JRB	9/11/20
NO.	ISSUE/DESCRIPTION	BY	DATE

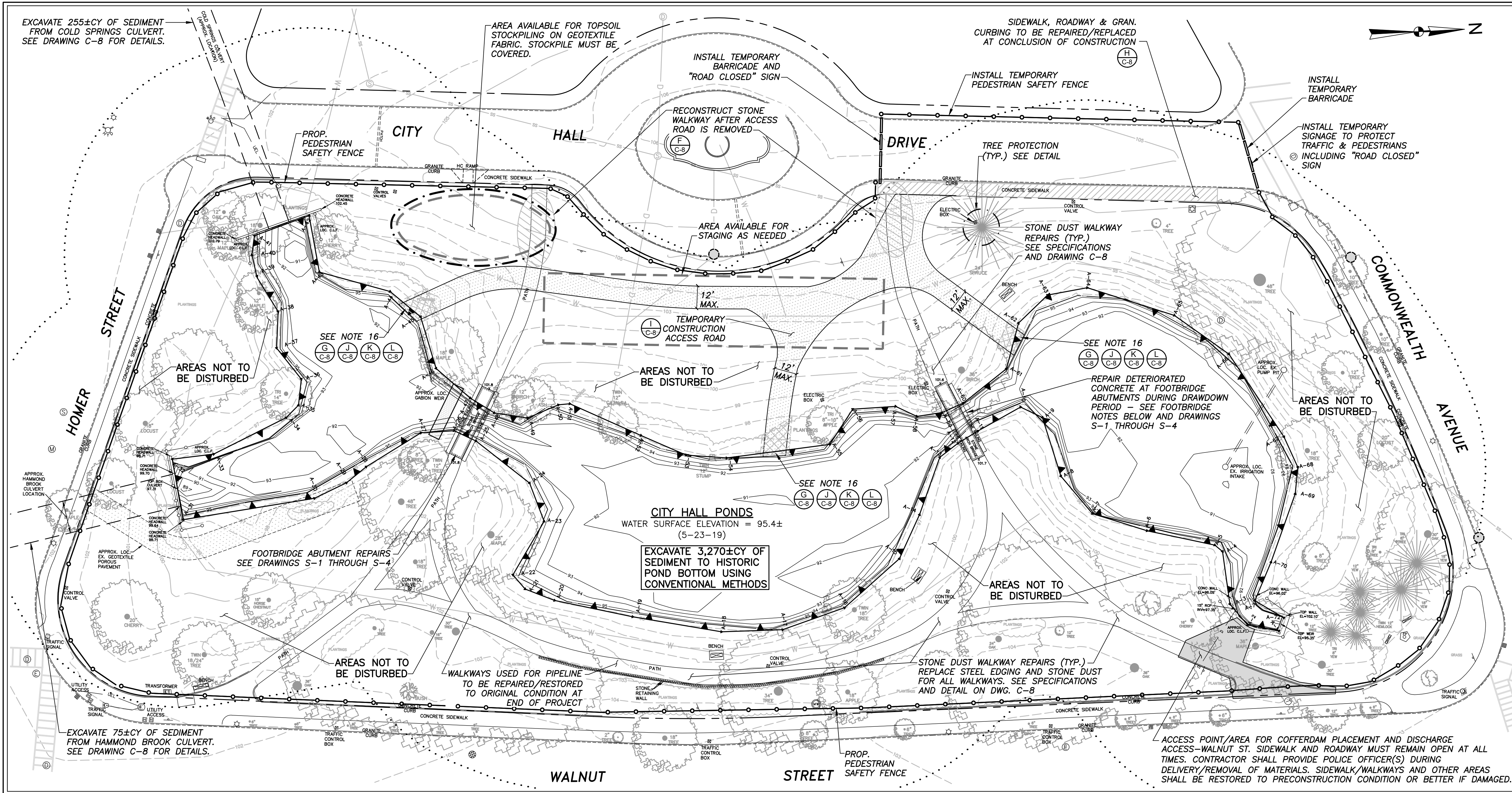
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**CITY HALL PONDS MAINTENANCE DREDGING PROJECT
NEWTON CENTRE, MASSACHUSETTS**

**EROSION AND SEDIMENT CONTROL
& CONTROL OF WATER PLAN**

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com	PREPARED FOR: CITY OF NEWTON DEPARTMENT OF PUBLIC WORKS 1000 COMMONWEALTH AVENUE NEWTON CENTRE, MA 02459		
PROJ MGR: JRB	REVIEWED BY: TEJ	CHECKED BY: SLL	DRAWING
DESIGNED BY: JRB	DRAWN BY: EDM	SCALE: 1"=40'	C-6
DATE: SEPTEMBER, 2020	PROJECT NO. 15.0166758.00	REVISION NO. 4	

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LEGEND

- BOUNDARY OF BANK RESOURCE
- RESOURCE AREA FLAG
- 100 FT. BUFFER TO BANK RESOURCE
- EXISTING 1 FT. UPLAND CONTOUR
- EXISTING 5 FT. UPLAND CONTOUR
- PROPOSED POND BOTTOM CONTOUR
- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING EDGE OF PAVEMENT
- EXISTING GRANITE CURB
- EXISTING CHAIN LINK FENCE
- EXISTING STORM DRAIN LINE
- EXISTING BURIED ELECTRIC LINE
- EXISTING CATCH BASIN
- EXISTING DRAIN MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING MANHOLE
- EXISTING ELECTRIC MANHOLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING VEGETATION
- EXISTING TREES
- PROPOSED PEDESTIAN SAFETY FENCE
- PROPOSED SILT FENCE
- PROPOSED FILTERED SILT SOXX OR APPROVED EQUAL
- CATCH BASIN PROTECTION
- PROPOSED TREE PROTECTION
- SEE NOTE 16

POTENTIAL HISTORIC UTILITIES ON SITE (NOT SURVEYED)

- W GALVANIZED IRON WATER PIPE
- D SURFACE DRAIN (VITRIFIED TILE)
- SS SANITARY SEWER

CONSTRUCTION NOTES - SEDIMENT REMOVAL AND MAINTENANCE OF CITY HALL PONDS

- PLANS DO NOT PURPORT TO SHOW ALL EXISTING UTILITIES. CONTACT DIG SAFE (1-888-344-7233) 72 HOURS PRIOR TO BEGINNING EXCAVATION ACTIVITIES.
- ALL WORK SHALL COMPLY WITH ENVIRONMENTAL PERMITS ISSUED FOR THE PROJECT. CONTRACTOR SHALL PROVIDE AND ERECT REQUIRED SIGN FOR DISPLAYING DEP FILE NUMBER (SEE SPECIFICATIONS).
- TREES AND PERMANENT STRUCTURES ARE TO BE PROTECTED. VEGETATION REMOVAL SHALL BE LIMITED ALONG POND BANKS AS PER ENVIRONMENTAL PERMITS AND PROJECT PLANS AND SPECIFICATIONS.
- SITE ACCESS SHALL BE AS SHOWN ON THE PLANS AND DETAILED IN THE PROJECT SPECIFICATIONS. CONTRACTOR MAY MAKE MINOR ADJUSTMENTS TO LOCATION AND ALIGNMENT OF ACCESS DRIVE ONLY WITH ACCEPTANCE OF OWNER.
- EXCAVATION SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATIONS.
- SEQUENCE OF EXCAVATION OPERATIONS SHALL INSURE THE EFFICIENT REMOVAL OF MATERIALS IN A TIMELY MANNER. SEQUENCE OF OPERATIONS MUST COMPLY WITH THE TERMS OF ANY ENVIRONMENTAL PERMITS ISSUED FOR THE PROJECT AND THE PROJECT SPECIFICATIONS.
- NOTIFY THE ENGINEER IF ANY UTILITIES ARE DISCOVERED DURING THE DRAWDOWN OF THE POND OR EXCAVATION OPERATIONS. UTILITIES DETERMINED TO BE ABANDONED SHALL BE REMOVED WITHIN THE GRADES SHOWN IN THE PLANS AT THE ENGINEER'S DIRECTION. ACTIVE UTILITIES SHALL NOT BE DISTURBED UNLESS DIRECTED BY THE ENGINEER. IRRIGATION SYSTEM IS ACTIVE. CONTRACTOR SHALL PROTECT ALL UTILITIES THROUGHOUT COURSE OF PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR/REPLACEMENT OF ALL DAMAGED UTILITIES/IRRIGATION SYSTEMS AT NO ADDITIONAL EXPENSE TO OWNER.
- GABION WEIR IN POND MUST BE PROTECTED FROM DAMAGE DURING THE CONSTRUCTION PERIOD AND REPAIRED/RESET IF DAMAGE OR MOVEMENT OCCURS.
- OVEREXCAVATION BEYOND THE AREA OF WORK AND CONTOURS INDICATED ON THE PLANS AND THE ELEVATIONS INDICATED ON THE CROSS SECTIONS WILL NOT BE PERMITTED OR PAID FOR BY THE OWNER. THE POND REPORTEDLY HAS A CLAY LINER. THE HISTORIC POND BOTTOM/LINER SHALL NOT BE DISTURBED DURING THE PROJECT.
- BEDROCK IS NOT TO BE EXCAVATED IF ENCOUNTERED.
- UNSUITABLE MATERIALS INCLUDING ALL MANMADE OR NATURAL OBJECTS NOT CLASSIFIED AS SEDIMENTS SHALL BECOME THE PROPERTY OF THE CONTRACTOR, INCLUDING BUT NOT LIMITED TO TIRES, CAR PARTS, APPLIANCES, TREE STUMPS OR LIMBS, VEGETATION, ETC. THESE MATERIALS MUST BE DISPOSED OF AT AN APPROPRIATE LOCATION OFFSITE CONSISTENT WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
- EQUIPMENT AND MATERIALS STORAGE SHALL BE CONFINED TO THE STAGING AREA. EXCAVATION EQUIPMENT MAY BE PARKED ON THE CONSTRUCTION ACCESS OUTSIDE OF THE POND DURING PERIODS OF INACTIVITY.
- REFUELING OF EQUIPMENT MUST TAKE PLACE OUTSIDE OF THE POND AND THE 100 FT BUFFER TO RESOURCE AREAS. TEMPORARY FUEL STORAGE TANKS SHALL NOT BE PERMITTED AT THE PROJECT SITE. REFUELING ON SITE MAY ONLY OCCUR IN AREAS APPROVED BY THE OWNER.
- THE POTENTIAL EXISTS FOR MAJOR FLOOD EVENTS DURING THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL NOT LEAVE EQUIPMENT IN THE POND AREA DURING PERIODS WHEN PERSONNEL ARE NOT ON SITE TO MOVE IT.
- AT THE COMPLETION OF EXCAVATION OPERATIONS, THE CONTRACTOR SHALL REMOVE ALL EROSION CONTROL BARRIERS, GEOTEXTILE FABRICS, STONE, TIMBERS, AND OTHER MATERIALS USED FOR TEMPORARY ACCESS OR CONTROLS ON THE POND BOTTOM.
- CONTRACTOR TO REMOVE AND RESET CHAIN LINK FENCE (IF PRESENT) AND BOULDERS AT THREE POND ACCESS POINTS. EACH OF THREE POND ACCESS POINTS SHALL INCLUDE VEGETATION REMOVAL ALONG NO MORE THAN 15 FT. OF BANK. TOPSOIL FROM ACCESS AREAS (HATCHED ON PLAN) SHALL BE STOCKPILED SEPARATELY AND RESET AT PROJECT END. RESTORATION OF AREAS SHALL COMMENCE WITHIN 14 DAYS OF THE END OF WORK WITHIN A POND LOBE AND ACCESS ROAD REMOVAL. 12" DIA. COMPOST FILTER TUBE EQUAL SHALL BE PLACED AROUND AREA UNTIL VEGETATION IS ESTABLISHED. SEE RESTORATION OF DISTURBED AREA NOTES ON THIS SHEET FOR ADDITIONAL RESTORATION INFORMATION.

PLAN VIEW
1"=30'

SEDIMENT EXCAVATION AND DISPOSAL NOTES:

- PROPOSED CONTOURS APPROXIMATE THE ORIGINAL POND BOTTOM BENEATH THE ACCUMULATED SEDIMENTS AS ESTIMATED BY PROBING DATA OBTAINED BY GZA GEOENVIRONMENTAL, INC. IN DECEMBER 2010.
- SEDIMENT EXCAVATION SHALL PROCEED TO THE LINES AND GRADES AS INDICATED ON THESE PLANS AND CROSS SECTIONS OR TO THE FIRM CLAY BOTTOM APPROVED BY THE ENGINEER, WHICHEVER IS FIRST ATTAINED.
- OVEREXCAVATION BEYOND THE LINES AND GRADES AS INDICATED ON THESE PLANS AN DISTURBANCE OF THE CLAY ORIGINAL POND BOTTOM WILL NOT BE PERMITTED OR PAID FOR BY THE OWNER.
- DREDGED SLOPES SHALL HAVE A MAXIMUM STEEPNESS OF 3 HORIZONTAL TO 1 VERTICAL (3H:1V).
- SEDIMENTS SHALL BE TRANSPORTED BY THE CONTRACTOR FOR REUSE/DISPOSAL OFF SITE. SEE SPECIFICATIONS FOR DETAILS.

FOOTBRIDGE REPAIR NOTES - SEE DRAWINGS S-1 THROUGH S-4:

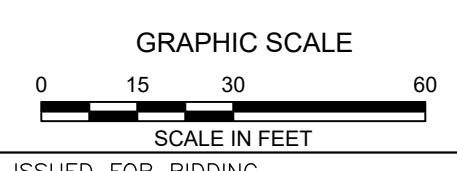
- ALL FOOTBRIDGE REPAIR WORK SHALL BE CONDUCTED IN DRY WEATHER CONDITIONS, WITH THE POND DRAWN DOWN IN THE AREA OF THE WORK.
- THE STONE FACES OF THE FOOTBRIDGE SHALL BE PROTECTED FROM THE REPAIR ACTIVITIES. ANY DAMAGE SHALL BE REPAIRED IN COORDINATION WITH APPLICABLE HISTORICAL REPAIR CONSULTANTS.
- REPAIR WORK SHALL BE LIMITED TO AREAS OF DETERIORATED CONCRETE AT THE NORMAL WATER LINE AND SHALL BE CONDUCTED PER PROJECT DRAWINGS AND SPECIFICATIONS.
- IN GENERAL, REPAIR WORK WILL CONSIST OF REMOVING DETERIORATED CONCRETE IN THE AREA OF THE NORMAL WATER LINE, PREPARATION OF THE SUBSTRATE, FORMING AND POURING CONCRETE REPAIRS, AND RUBBING AND FINISHING THE FORMED CONCRETE SURFACES.
- IF WORK IS CONDUCTED IN COLD WEATHER, HEATED ENCLOSURES WILL BE NEEDED PER DRAWINGS AND SPECIFICATIONS.

RESTORATION OF DISTURBED AREA NOTES:

- ANY DAMAGE TO SIDEWALKS MUST BE REPAIRED PER DETAIL IN PLAN SET.
- EXISTING WALKWAYS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER AFTER TEMPORARY ACCESS ROUTES HAVE BEEN REMOVED.
- CONTRACTOR TO REMOVE ALL STONE AND FILTER FABRIC FROM TEMPORARY ACCESS AREAS AT END OF CONSTRUCTION.
- DISTURBED AREAS WHICH WERE TURF GRASS PRIOR TO CONSTRUCTION SHALL BE RESTORED TO PRECONSTRUCTION GRADES WITH ORDINARY BORROW, DRESSED WITH 6 INCHES OF TOPSOIL SET ASIDE FROM THE BANK AREA AT THE START OF CONSTRUCTION, AND PLANTED WITH SHRUBS PER DETAILS ON DRAWING C-8, WITH AREAS ADJACENT TO SHRUBS SEEDED PER DETAIL ON DRAWING C-8.
- DISTURBED AREAS WHICH WERE VEGETATED BUFFER AREAS ADJACENT TO THE POND (SHOWN IN HATCHING ON THIS SHEET) SHALL BE RESTORED TO PRECONSTRUCTION SUBGRADES WITH ORDINARY BORROW, DRESSED WITH 6 INCHES OF TOPSOIL SET ASIDE FROM THE BANK AREA AT THE START OF CONSTRUCTION, AND PLANTED WITH SHRUBS PER DETAILS ON DRAWING C-8, WITH AREAS ADJACENT TO SHRUBS SEEDED PER DETAIL ON DRAWING C-8.

OPERATION & MAINTENANCE (O&M) NOTES:

- POST CONSTRUCTION, THE CITY OF NEWTON DEPARTMENT OF PUBLIC WORKS WILL OPERATE & MAINTAIN THE POND IN ACCORDANCE WITH THE O&M PLAN DEVELOPED FOR THE SITE.



NO.	ISSUE/DESCRIPTION	BY	DATE
5	ISSUED FOR BIDDING	JRB	10/17/23
4	NOTE MODIFICATIONS, ISSUED FOR BIDDING	JRB	10/13/22
3	ISSUED FOR WOC APPLICATION	JRB	3/23/21
2	CONSTRUCTION ACCESS ROAD MODIFICATIONS	JRB	11/18/20
1	MISC. NOTE CHANGES - REISSUED FOR NOI PERMITTING	JRB	11/17/20
0	ISSUED FOR PERMITTING	JRB	9/11/20

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**CITY HALL PONDS MAINTENANCE DREDGING PROJECT
NEWTOWN CENTRE, MASSACHUSETTS**

POND RESTORATION PLAN

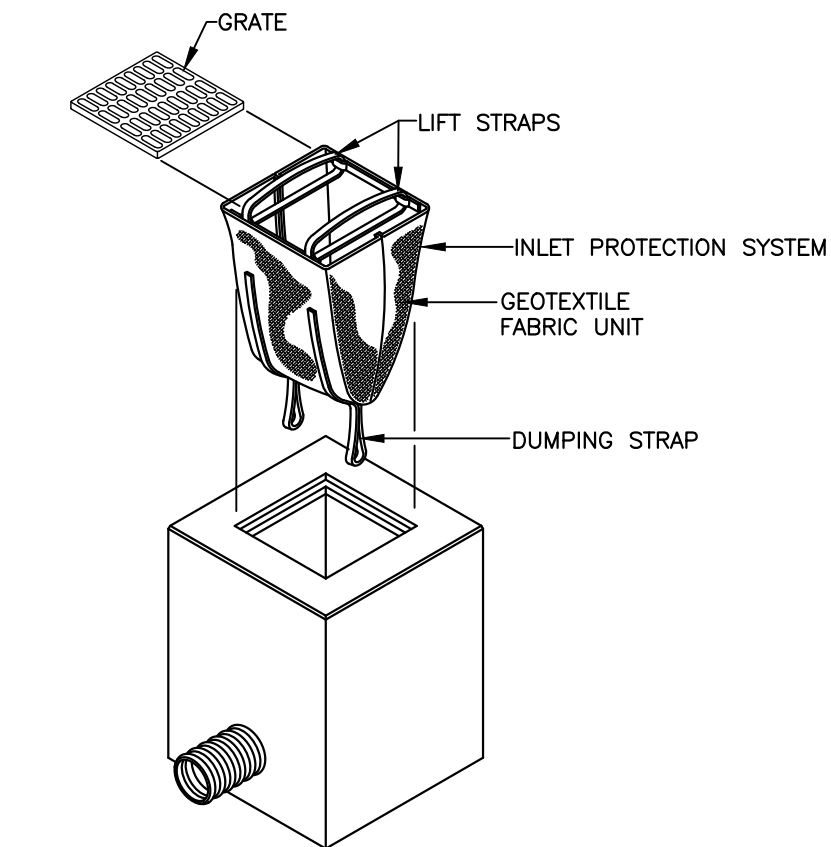
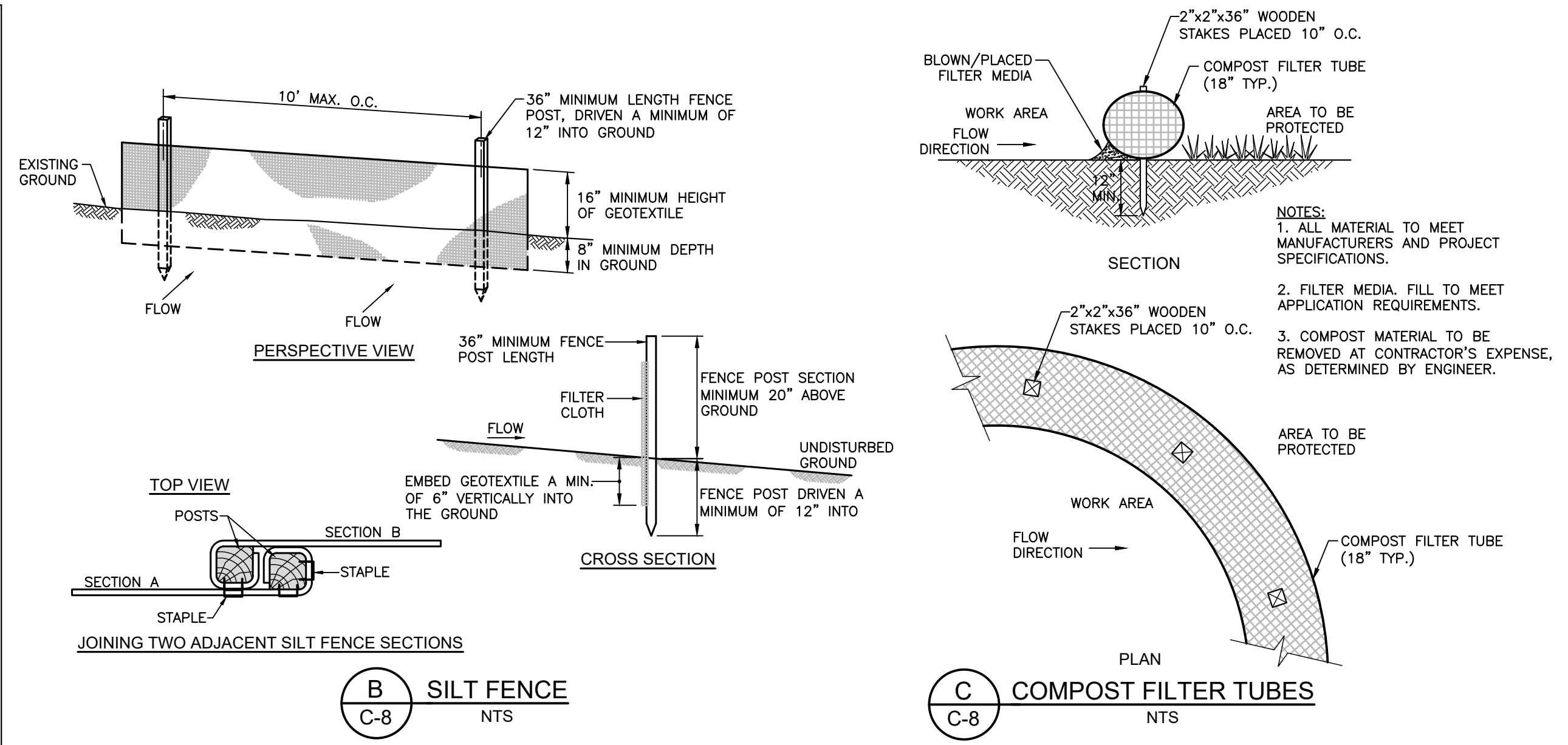
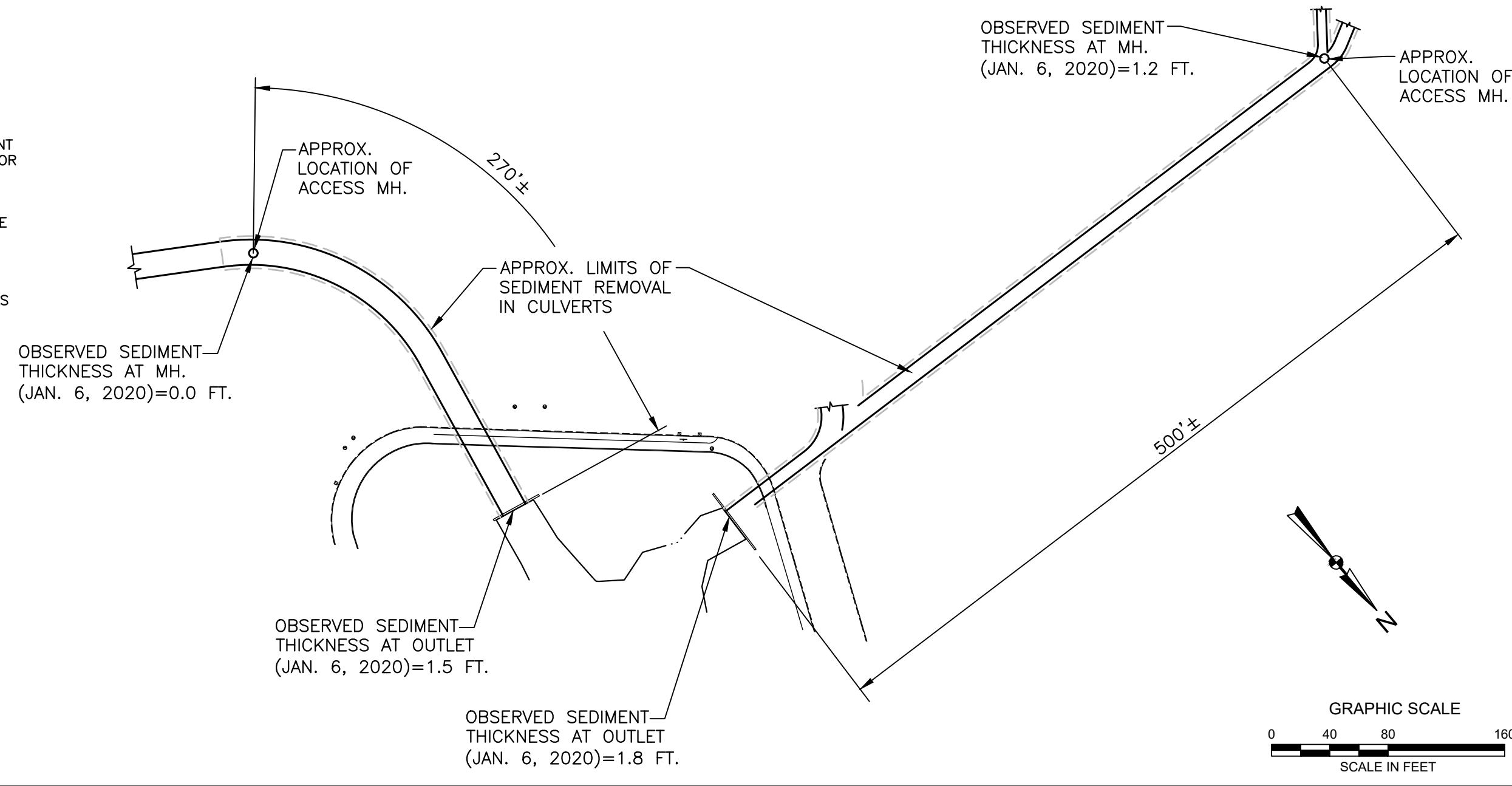
PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com	PREPARED FOR: CITY OF NEWTON DEPARTMENT OF PUBLIC WORKS 1000 COMMONWEALTH AVENUE NEWTOWN CENTRE, MA 02459
PROJ MGR: JRB DESIGNED BY: JRB DATE: SEPTEMBER, 2020	REVIEWED BY: TEJ DRAWN BY: EDM PROJECT NO. 15.0166758.00
CHECKED BY: SLL SCALE: 1"=30' REVISION NO. 4	DRAWING C-7

CULVERT CLEANING NOTES:

1. SEDIMENT MAY BE REMOVED FROM THE CULVERTS BY USE OF MECHANICAL EQUIPMENT, HAND LABOR, OR VACUUMING AS PROPOSED BY THE CONTRACTOR AND ACCEPTED.
2. CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION EXISTING CONDITIONS SURVEY TO DETERMINE THE AMOUNT OF SEDIMENT PRESENT IN EACH CULVERT AND EXISTING CONDITIONS OF CULVERTS. CONTRACTOR SHALL ALSO REPORT ANY INCOMING STORM SEWERS OR DAMAGED SECTIONS OF THE CULVERTS.
3. CONSTRUCTION ACTIVITIES SHALL NOT DAMAGE THE INTERIOR OF THE CULVERTS. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE TO CULVERT AT NO ADDITIONAL COST TO THE OWNER.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING FLOWS WITHIN THE CULVERTS DURING CONSTRUCTION ACTIVITIES. NO MATERIALS OR EQUIPMENT MAY REMAIN IN THE CULVERTS OVERNIGHT OR WHEN CONTRACTOR IS NOT ON SITE. ALL CULVERT WORK SHALL TAKE PLACE DURING DRY WEATHER PERIODS.

DATA SOURCES:

1. CULVERT LOCATION INFORMATION AND SLOPES TAKEN FROM PLANS ENTITLED "PROPOSED STREAM IMPROVEMENTS PIPE CONDUIT & CONCRETE CULVERT COLD SPRING & HAMMOND BROOK, NEWTON CENTER, NEWTON" PREPARED BY DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS DIVISION OF WATERWAYS, DATED MARCH 1958.
2. APPROXIMATE ACCESS MANHOLE (MH) LOCAL INFORMATION TAKEN FROM PLANS ENTITLED "PLANS FOR THE RESTORATION OF LAUNDRY BROOK DRAINAGE SYSTEM INCLUDING BULLOUGH'S AND CITY HALL PONDS AND COLD SPRING & HAMMOND BROOK CULVERTS" BY BEC, INC. DATED JANUARY 1992.
3. APPROXIMATE CULVERT SEDIMENT THICKNESSES MEASURED BY GZA, INC. ON JANUARY 6, 2020.



INSTALLATION AND MAINTENANCE GUIDELINES

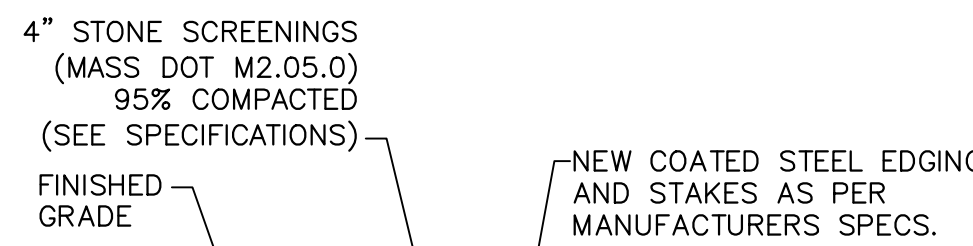
INSTALLATION: REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS; PLACE ABSORBENT PILLOW IN UNIT. STAND THE GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO THE GEOTEXTILE FABRIC UNIT SO THAT THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE GEOTEXTILE FABRIC UNIT. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL OIL ABSORBENTS; REPLACE ABSORBENT WHEN NEAR SATURATION.

ANY TREES AND OTHER VEGETATION CUT SHALL BE COMPLETELY REMOVED FROM THE SITE AND DISPOSED OF AT NO ADDITIONAL COST TO THE OWNER. ANY TREES OR BRUSH TO BE REMOVED SHALL BE CLEANLY CUT FLUSH WITH THE GROUND. STUMPS OR ROOT BALLS SHALL NOT BE REMOVED EXCEPT WHERE NECESSARY.

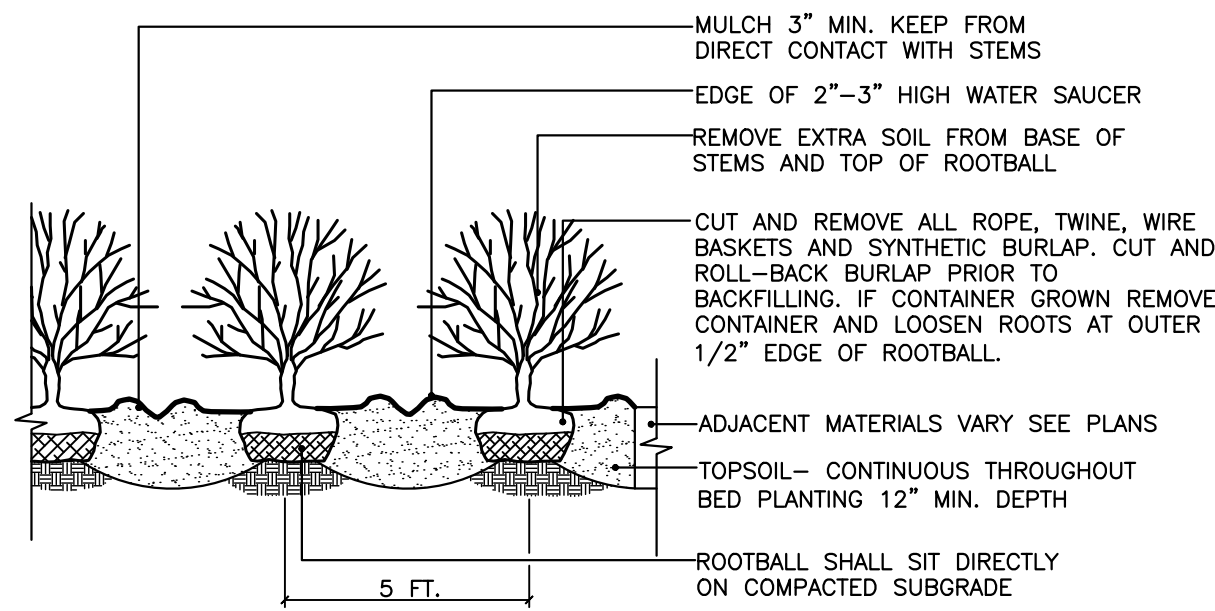
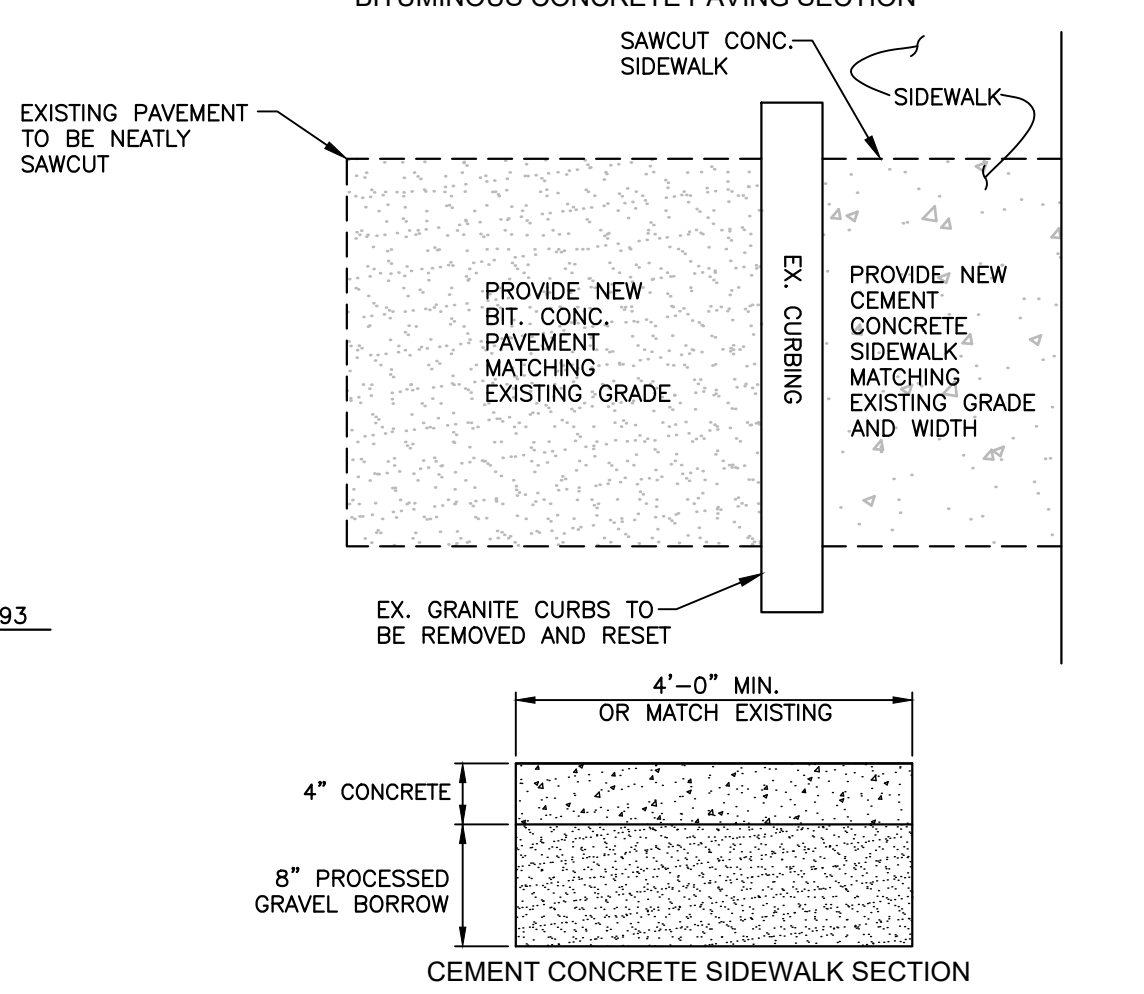
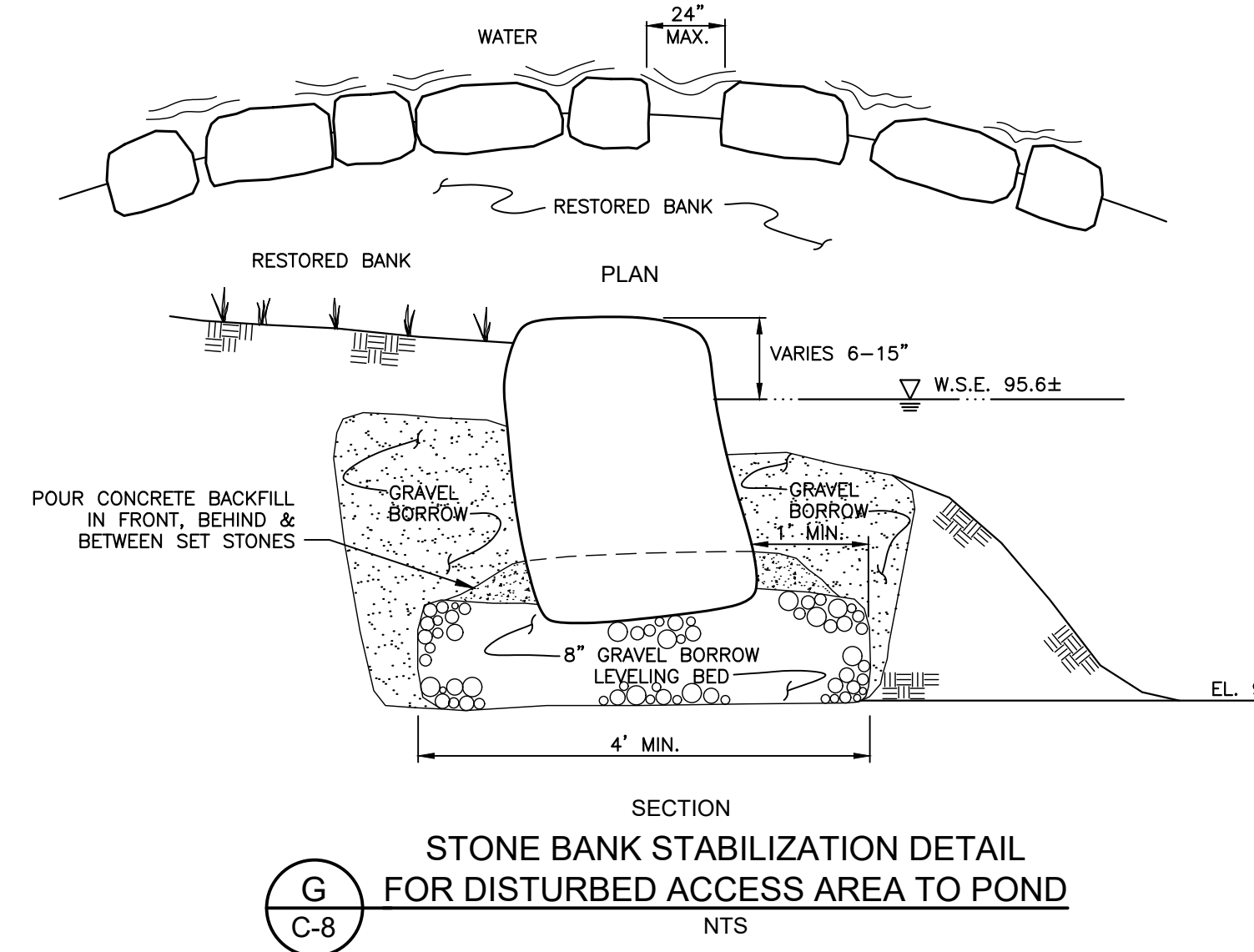
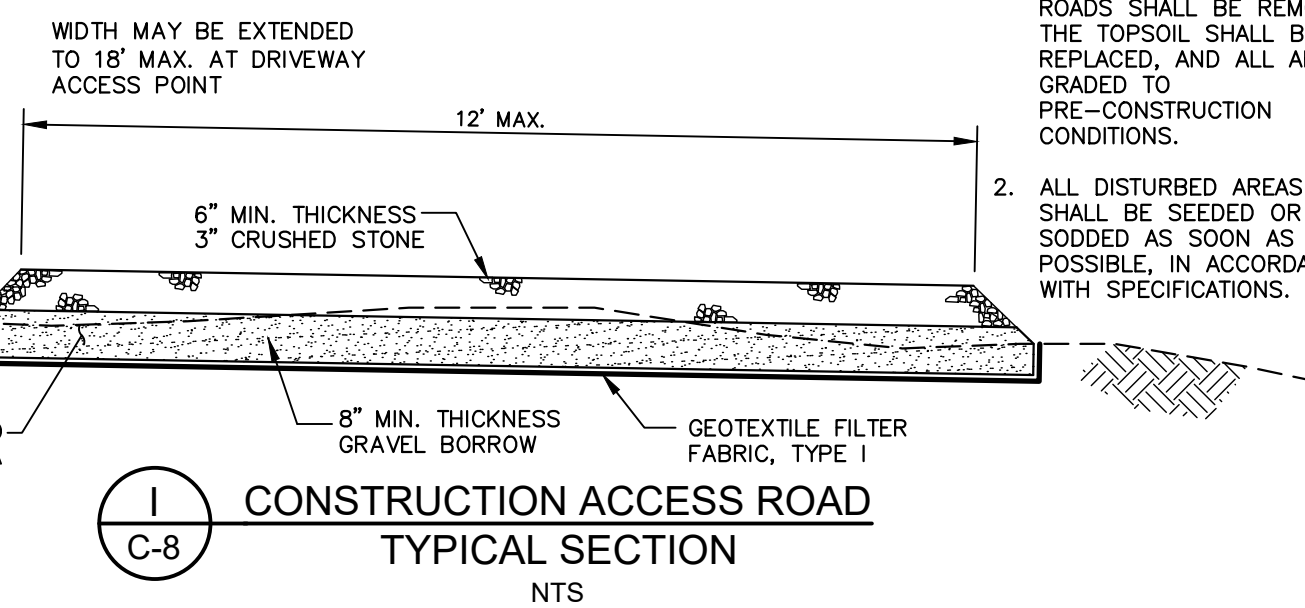
ENCIRCLE TREE WITH 4' HIGH PEDESTRIAN FENCING SET AT DRILLLINE, OR MIN. 5' FROM TRUNK.

E TREE PROTECTION
C-8 NTS



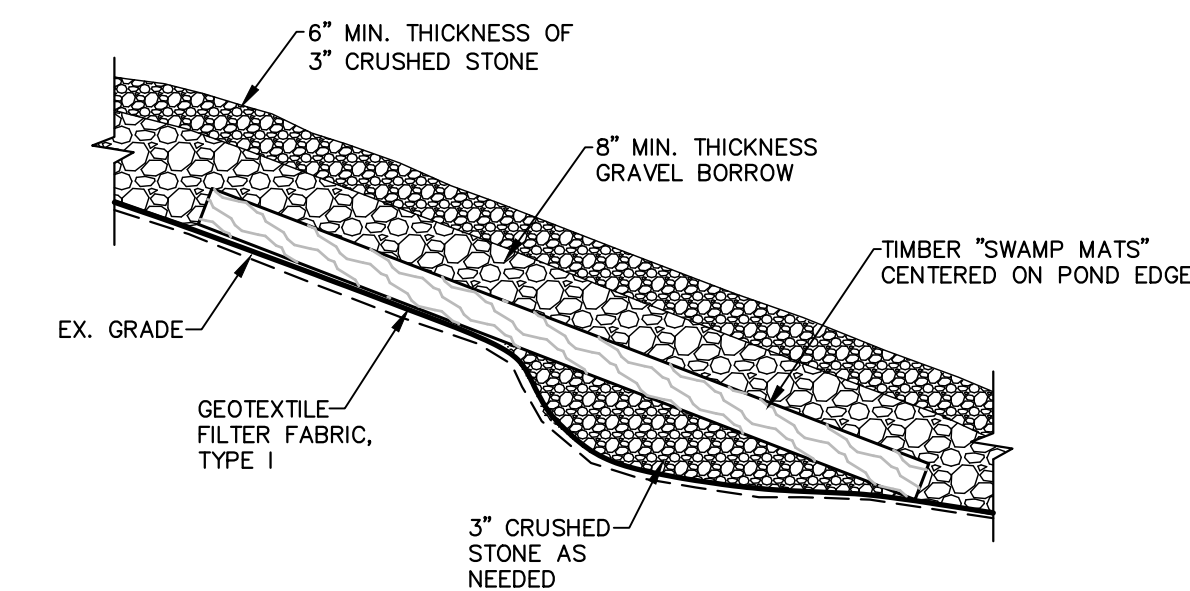
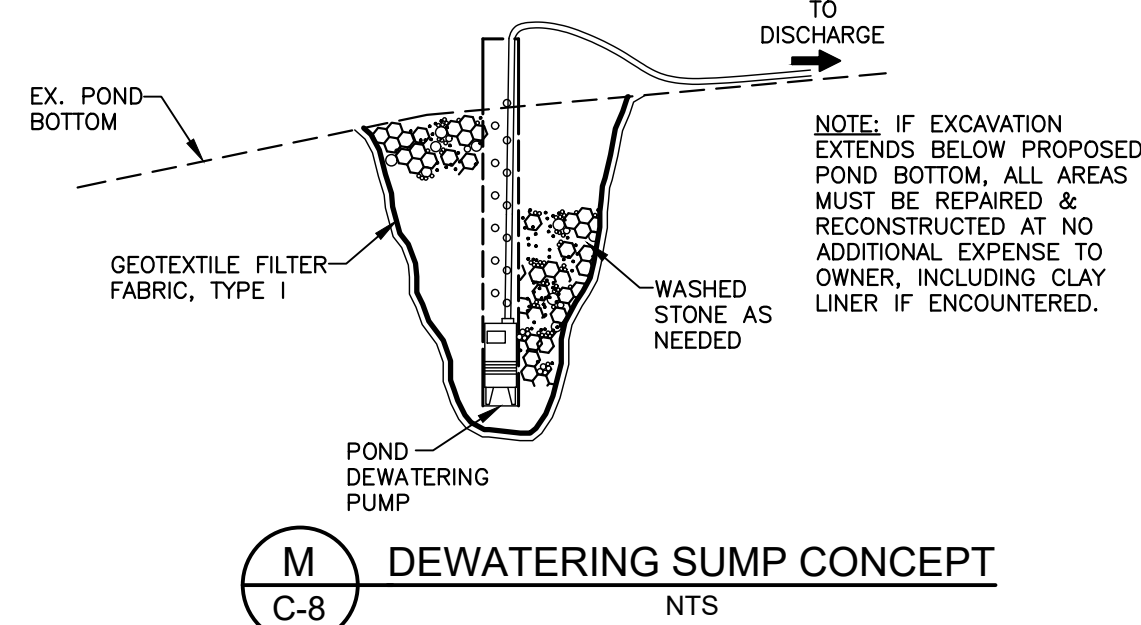
CONSTRUCTION ACCESS ROAD NOTES:

1. AT COMPLETION OF POND EXCAVATION, ALL ACCESS ROADS SHALL BE REMOVED, THE TOPSOIL SHALL BE REPLACED, AND ALL AREAS GRADED TO PRE-CONSTRUCTION CONDITIONS.
2. ALL DISTURBED AREAS SHALL BE SEEDED OR SODDED AS SOON AS POSSIBLE, IN ACCORDANCE WITH SPECIFICATIONS.



NOTE: SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

1. SHRUBS SHALL BE SET PLUMB AND PLANTED SO THAT THE TOP OF THE ROOTBALL IS 1"-2" ABOVE FINISHED GRADE.
2. NO PRUNING OR CUTTING UNLESS DIRECTED BY THE LANDSCAPE ARCHITECT.
3. SAUCER SHALL BE FLOODED TWICE DURING THE FIRST 24 HOURS AFTER PLANTING.



COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY	NOTES
Serviceberry	Amelanchier canadensis	#3	5	Container grown, plant 5' apart, random placement
Fragrant sumac	Rhus aromatica 'Gro-Low'	#2	7	Container grown, plant 5' apart, random placement
Winterberry	Ilex verticillata	#3	5	Container grown, plant 5' apart, random placement
Black chokeberry	Aronia melanocarpa	#5	5	Container grown, plant 5' apart, random placement
Red Twig Dogwood	Cornus sericea	#5	5	Container grown, plant 5' apart, random placement

NOTE: BANK RESTORATION AREAS NOT RECEIVING SHRUBS SHOULD BE SEEDED WITH NEW ENGLAND EROSION/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES (BY NEW ENGLAND WETLAND PLANTS, INC. OR APPROVED EQUAL). APPLICATION RATE: 35lbs/ac.

L PLANT LIST
C-8

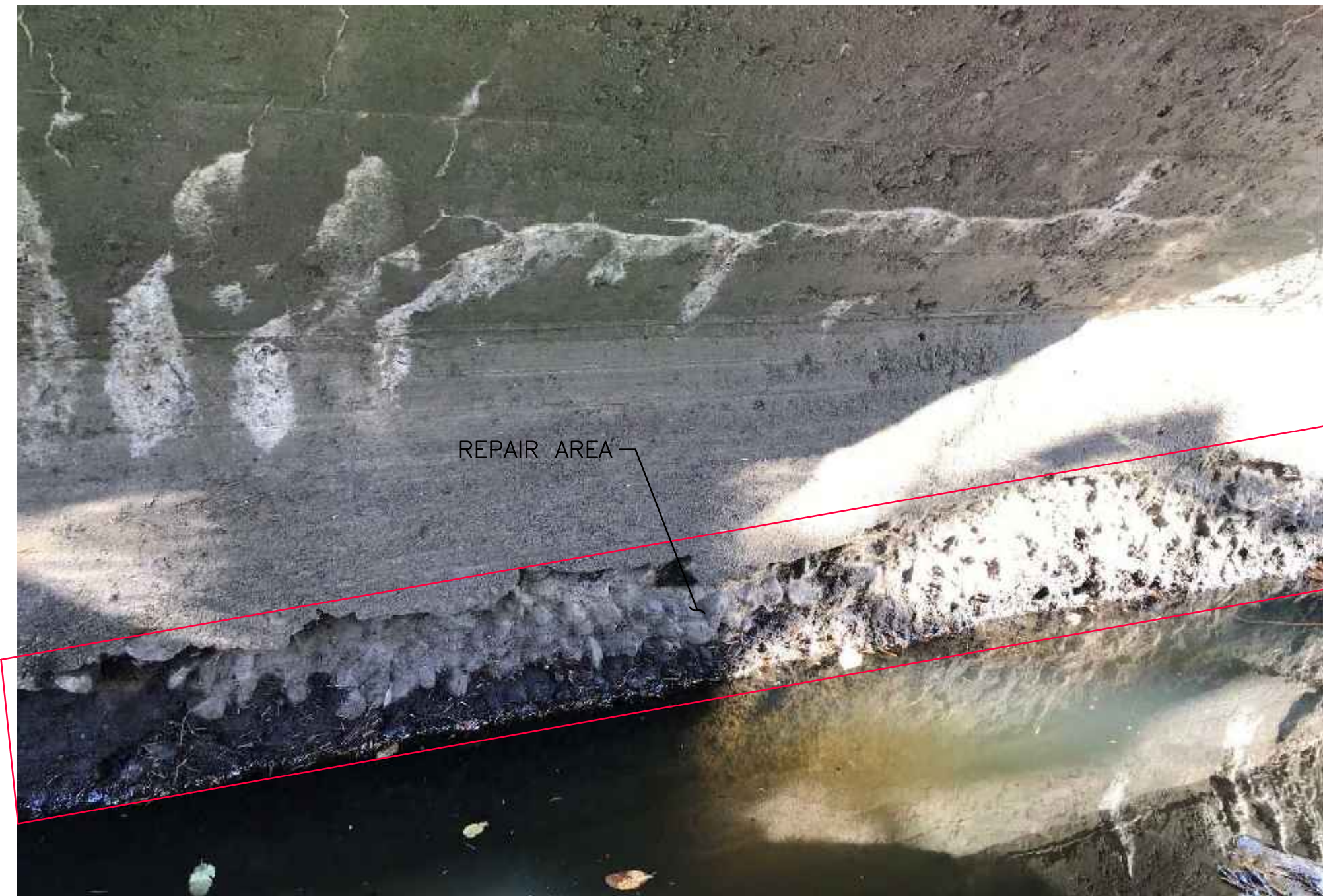
NO.	ISSUE/DESCRIPTION	BY	DATE
5	ISSUED FOR BIDDING	JRB	10/17/23
4	DETAIL MODIFICATIONS, ISSUED FOR BIDDING	JRB	10/13/22
3	ISSUED FOR WQC APPLICATION	JRB	3/23/21
2	REVISED PLANT LIST - REISSUED FOR NOI PERMITTING	JRB	11/23/20
1	MISC. NOTE CHANGES - REISSUED FOR NOI PERMITTING	JRB	11/17/20
0	ISSUED FOR PERMITTING	JRB	9/11/20

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**CITY HALL PONDS MAINTENANCE DREDGING PROJECT
NEWTON CENTRE, MASSACHUSETTS**

**CULVERT CLEANING PLAN
AND DETAILS**

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com	PREPARED FOR: CITY OF NEWTON DEPARTMENT OF PUBLIC WORKS 1000 COMMONWEALTH AVENUE NEWTON CENTRE, MA 02459
PROJ MGR: JRB DESIGNED BY: JRB DATE: SEPTEMBER, 2020	REVIEWED BY: TEJ DRAWN BY: EDM PROJECT NO. 15.0166758.00
CHECKED BY: SLL SCALE: AS NOTED REVISION NO. 4	DRAWING C-8



DOWNSTREAM BRIDGE – EAST ABUTMENT
N.T.S.

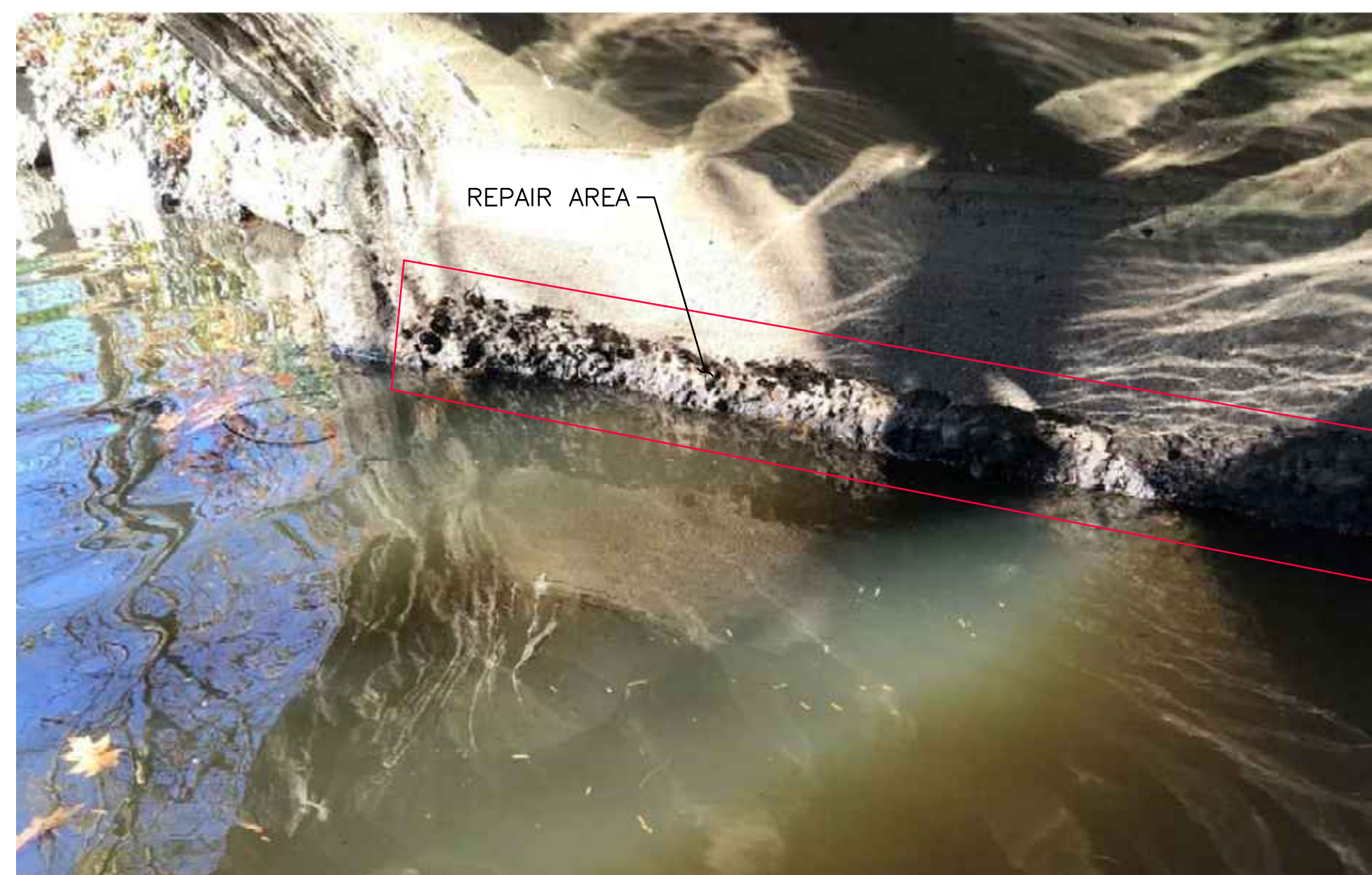


DOWNSTREAM BRIDGE – WEST ABUTMENT
N.T.S.

NOTE: EAST AND WEST ABUTMENTS ON BOTH THE DOWNSTREAM AND UPSTREAM BRIDGE ARE TO BE REPAIRED.



UPSTREAM BRIDGE – EAST ABUTMENT
N.T.S.



UPSTREAM BRIDGE – WEST ABUTMENT
N.T.S.

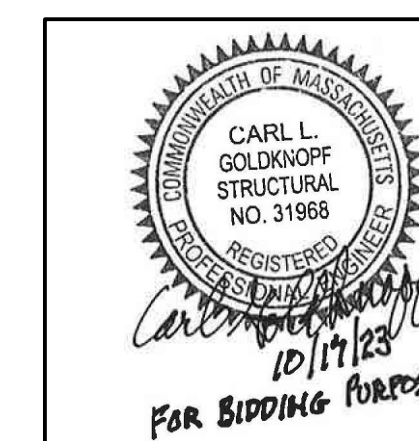
3	ISSUED FOR BIDDING	PDZ	10/17/23
2	ISSUED FOR BIDDING	PDZ	10/13/22
1	CITY OF NEWTON REVIEW	BDW	9/14/22
0	ISSUED FOR PERMITTING	JRB	9/11/20
NO.	ISSUE/DESCRIPTION	BY	DATE

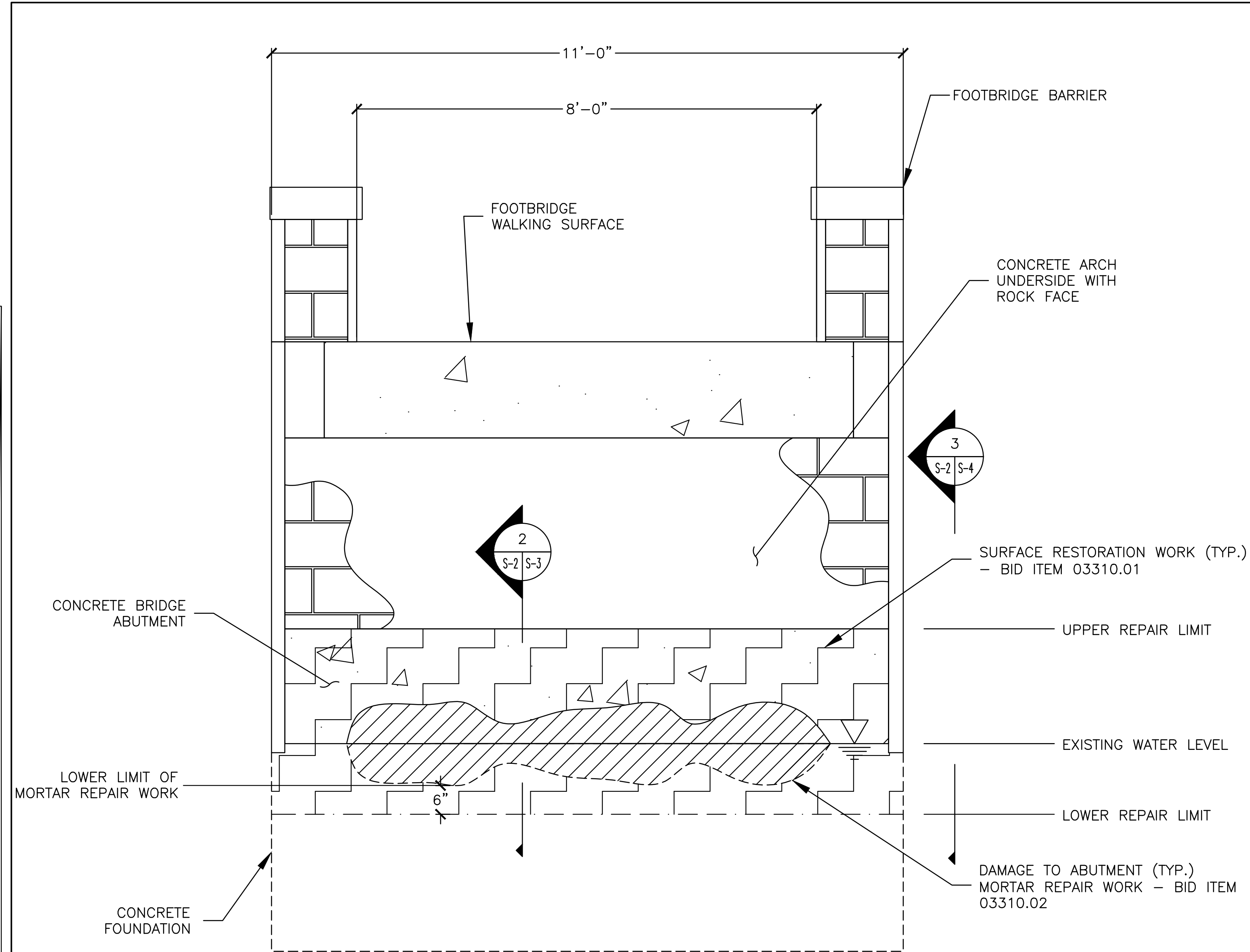
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CITY HALL PONDS MAINTENANCE DREDGING PROJECT
NEWTON CENTRE, MASSACHUSETTS

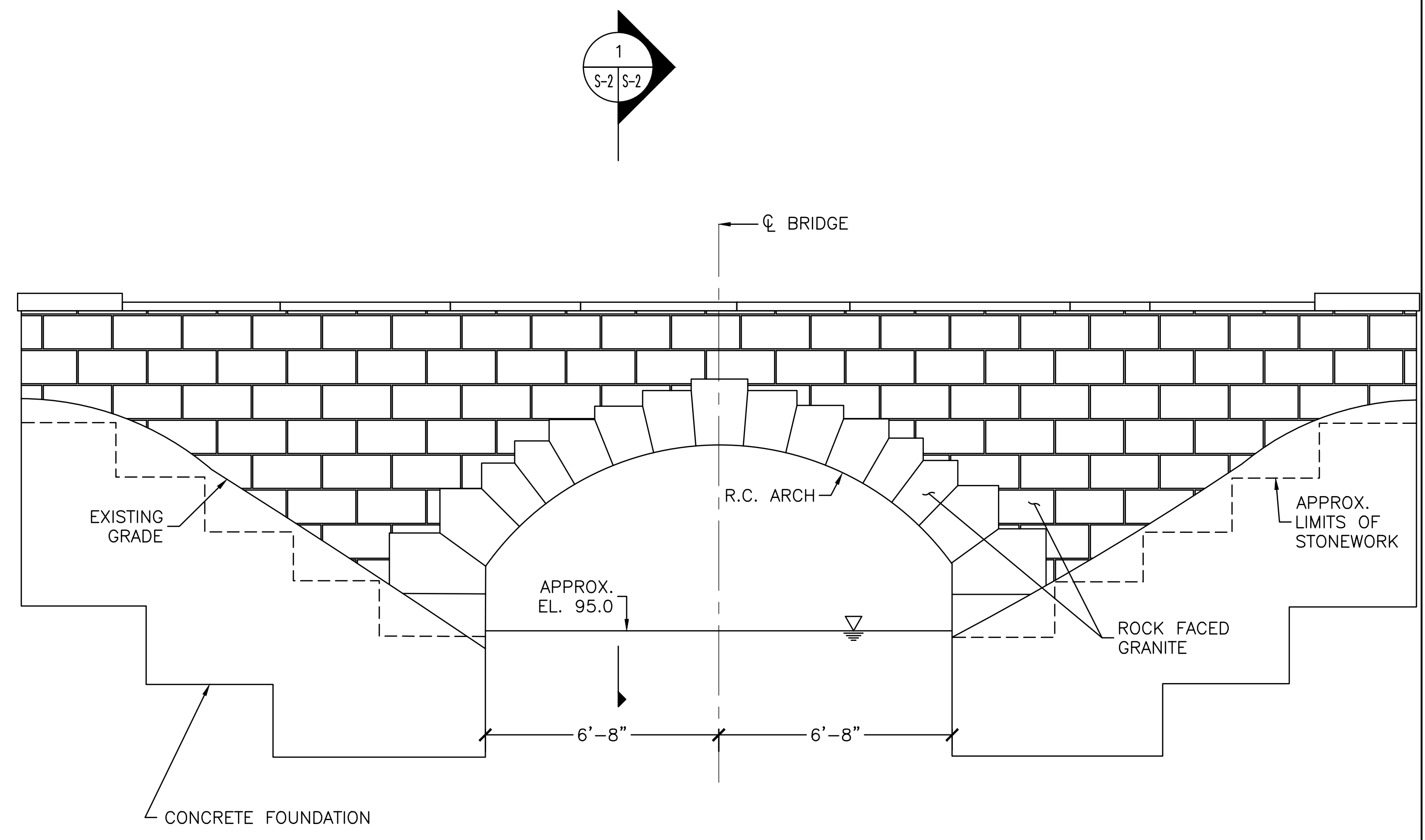
BRIDGE ABUTMENT REPAIR DETAILS

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PROJ MGR: JRB DESIGNED BY: PDZ DATE: SEPTEMBER, 2022	REVIEWED BY: JAA DRAWN BY: PDZ PROJECT NO. 15.0166758.00	CHECKED BY: CLG SCALE: AS NOTED REVISION NO. 2	DRAWING S-1





1 TYPICAL FOOTBRIDGE SECTION
 SCALE: 3/4" = 1'-0"



TYPICAL FOOTBRIDGE ELEVATION
 N.T.S.

NOTE: THE SKETCHES ON THIS SHEET ARE DERIVED FROM THE 1931 "PRELIMINARY CONSTRUCTION PLAN FOR FOOTBRIDGES" BY OLMSTEAD BROTHER LANDSCAPE ARCHITECTS. THE BRIDGE IS SHOWN SCHEMATICALLY.

LEGEND:

	SURFACE RESTORATION WORK - BID ITEM 03310.01
	DAMAGE TO ABUTMENT. MORTAR REPAIR WORK - BID ITEM 03310.02
	LOWER REPAIR LIMIT
	EXISTING WATER LEVEL

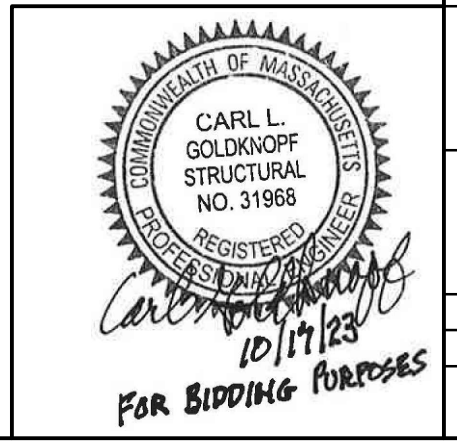
3	ISSUED FOR BIDDING	PDZ	10/17/23
2	ISSUED FOR BIDDING	PDZ	10/13/22
1	CITY OF NEWTON REVIEW	BDW	9/14/22
0	ISSUED FOR PERMITTING	JRB	9/11/20
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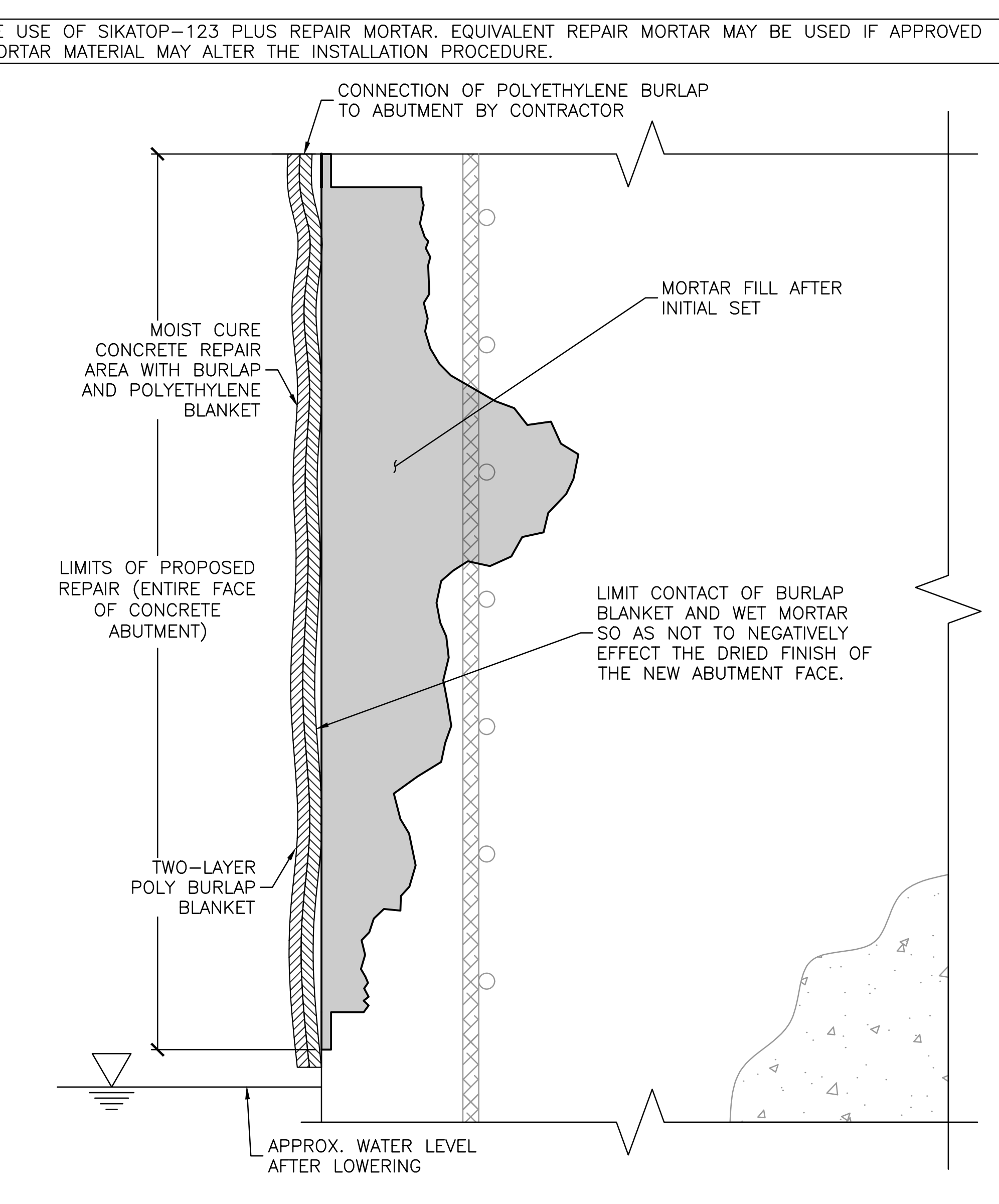
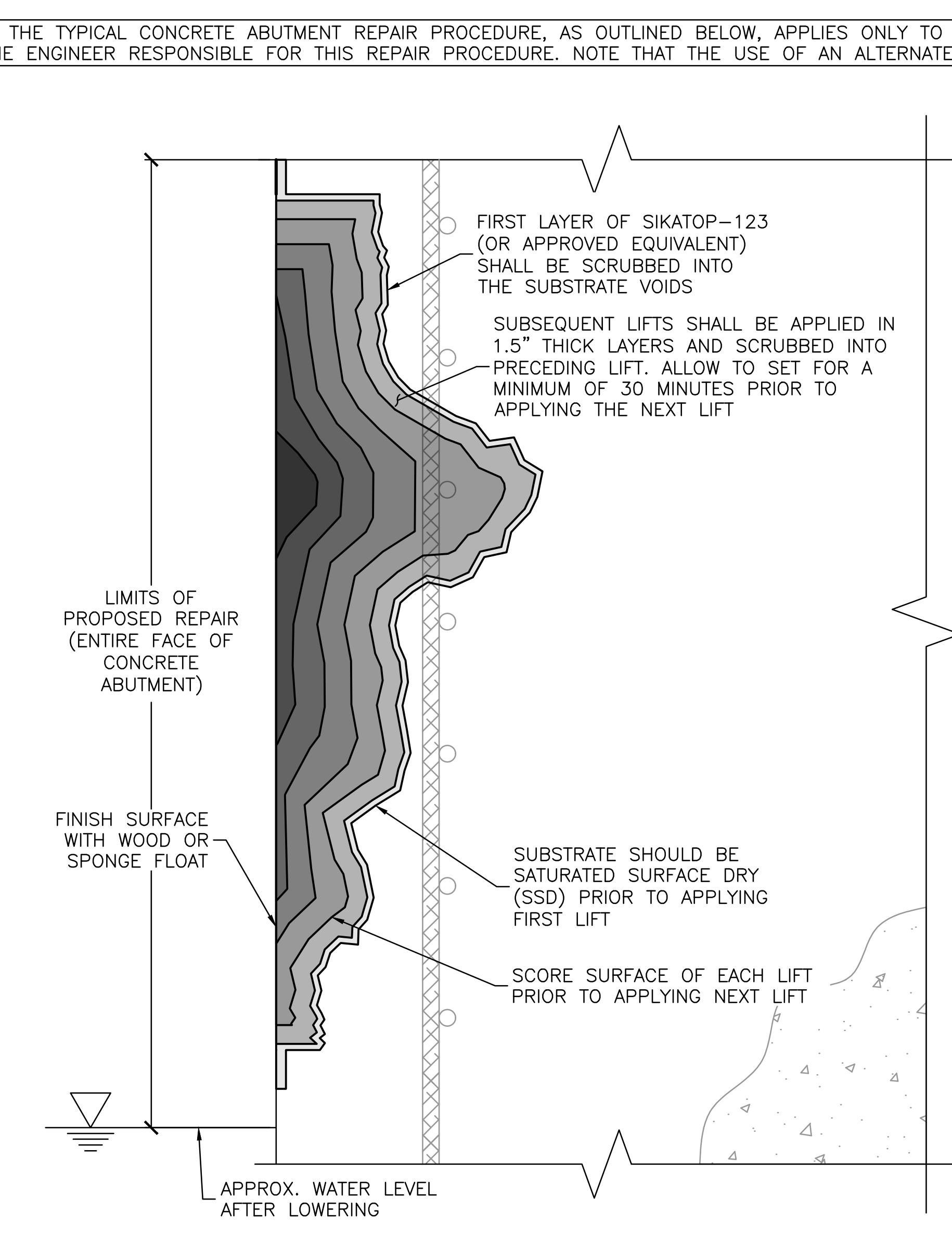
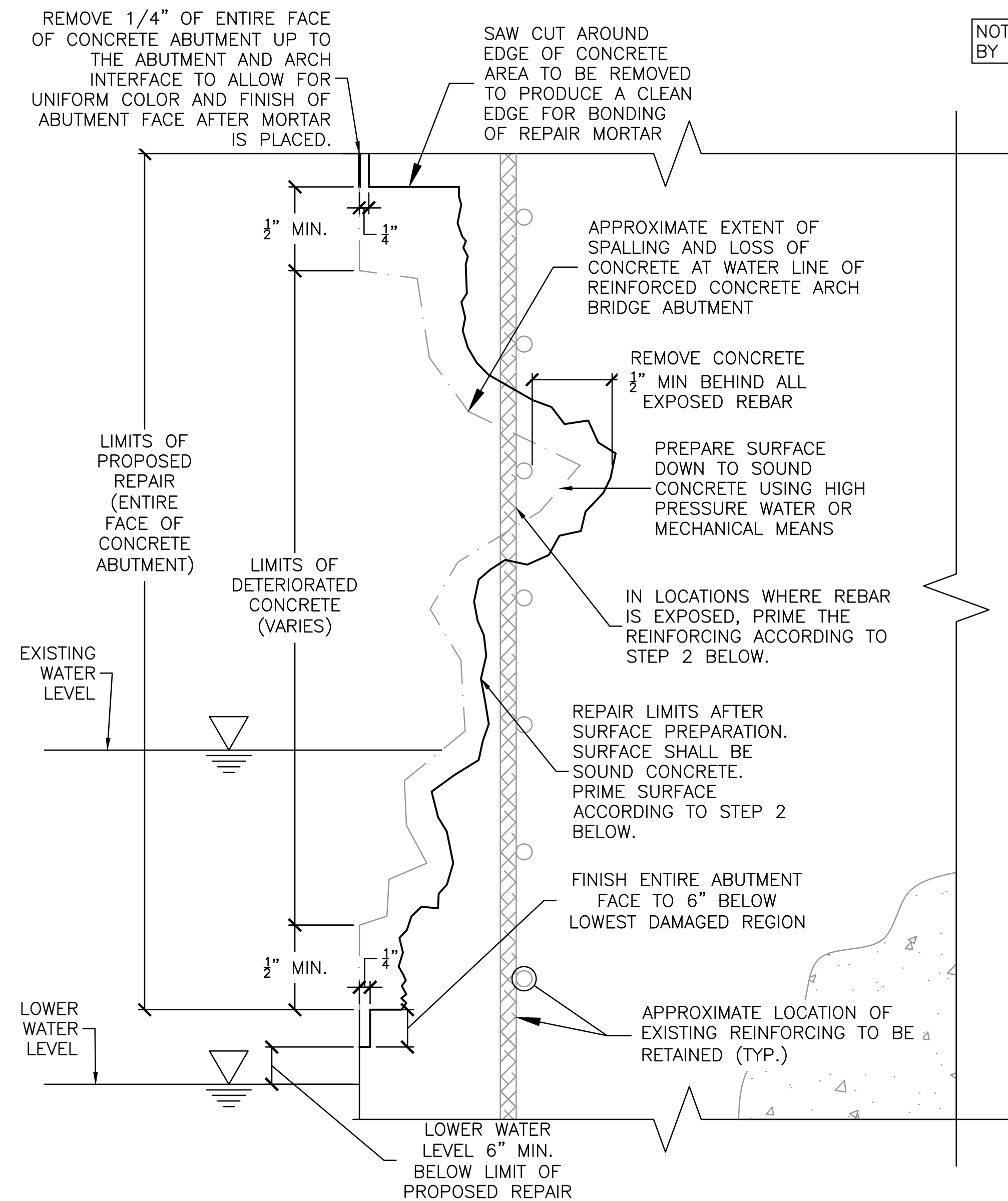
**CITY HALL PONDS MAINTENANCE DREDGING PROJECT
 NEWTON CENTRE, MASSACHUSETTS**

EXISTING ARCH BRIDGE ELEVATION AND SECTION

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PROJ MGR: JRB DESIGNED BY: PDZ DATE: SEPTEMBER, 2022	REVIEWED BY: JAA DRAWN BY: PDZ PROJECT NO. 15.0166758.00
CHECKED BY: CLG SCALE: AS NOTED REVISION NO. 2	DRAWING S-2



NOTE: THE TYPICAL CONCRETE ABUTMENT REPAIR PROCEDURE, AS OUTLINED BELOW, APPLIES ONLY TO THE USE OF SIKATOP-123 PLUS REPAIR MORTAR. EQUIVALENT REPAIR MORTAR MAY BE USED IF APPROVED BY THE ENGINEER RESPONSIBLE FOR THIS REPAIR PROCEDURE. NOTE THAT THE USE OF AN ALTERNATE MORTAR MATERIAL MAY ALTER THE INSTALLATION PROCEDURE.



2A TYPICAL ABUTMENT REPAIR SECTION – STEP 1 & 2
S2/S3 N.T.S.

2B TYPICAL ABUTMENT REPAIR SECTION – STEP 3 & 4
S2/S3 N.T.S.

2C TYPICAL ABUTMENT REPAIR SECTION – STEP 5
S2/S3 N.T.S.

STEP 1: PREPARATION

- LOWER WATER LEVEL BELOW THE DEPTH OF THE DETERIORATED CONCRETE TO BE REPAIRED.
- REMOVE ALL DETERIORATED CONCRETE, DIRT, OIL, GREASE, AND OTHER BOND-INHIBITING MATERIALS FROM THE AREA TO BE REPAIRED.
- PREPARATION WORK SHALL BE DONE BY HIGH PRESSURE WATER BLAST, SCABBLER OR OTHER APPROPRIATE MECHANICAL MEANS TO OBTAIN AN EXPOSED AGGREGATE SURFACE PROFILE OF $\pm 1/8"$.
- TO ENSURE OPTIMUM REPAIR RESULTS, THE EFFECTIVENESS OF DECONTAMINATION AND PREPARATION SHOULD BE ASSESSED BY A PULL-OFF TEST.
- SAW CUTTING OF EDGES IS PREFERRED AND A DOVETAIL IS RECOMMENDED.
- SUBSTRATE SHOULD BE SATURATED SURFACE DRY (SSD) WITH CLEAN WATER PRIOR TO APPLICATION. NO STANDING WATER SHOULD REMAIN DURING APPLICATION.
- REPAIR AREA SHALL NOT BE LESS THAN $1/8"$ IN DEPTH.

STEP 2: PRIMING

- **REINFORCING STEEL:** STEEL REINFORCEMENT SHOULD BE THOROUGHLY PREPARED BY MECHANICAL CLEANING TO REMOVE ALL TRACES OF RUST. WHERE CORROSION HAS OCCURRED DUE TO THE PRESENCE OF CHLORIDES, THE STEEL SHOULD BE HIGH PRESSURE WASHED WITH CLEAN WATER AFTER MECHANICAL CLEANING. FOR PRIMING OF REINFORCING STEEL USE SIKA ARMATEC 110 EPOCEM (OR APPROVED EQUIVALENT).
- **CONCRETE SUBSTRATE:**
 - PRIME THE PREPARED SUBSTRATE WITH A BRUSH OR SPRAYED APPLIED COAT OF SIKA ARMATEC 110 EPOCEM (OR APPROVED EQUIVALENT)
 - ALTERNATELY, A SCRUB COAT OF SIKATOP-123 PLUS (OR APPROVED EQUIVALENT) CAN BE APPLIED PRIOR TO PLACEMENT OF THE MORTAR. THE REPAIR MORTAR HAS TO BE APPLIED INTO THE WET SCRUB COAT BEFORE IT DRIES.

STEP 3: MIXING

- MIX THE SIKATOP-123 PLUS (OR APPROVED EQUIVALENT) COMPONENTS ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

STEP 4: APPLICATION

- SIKATOP-123 PLUS (OR APPROVED EQUIVALENT) MUST BE SCRUBBED INTO THE SUBSTRATE, FILLING ALL PORES AND VOIDS.
- FORCE MATERIAL AGAINST THE EDGE OF REPAIR, WORKING TOWARD THE CENTER.
- AFTER FILLING REPAIR, CONSOLIDATE, THEN SCREED.
- WHERE MULTIPLE LIFTS ARE REQUIRED, SCORE TOP OF SURFACE OF EACH LIFT TO PRODUCE A ROUGHENED SURFACE FOR NEXT LIFT.
- ALLOW PRECEDING LIFT TO REACH INITIAL SET, 30 MINUTES MINIMUM, BEFORE APPLYING FRESH MATERIAL.
- SUBSTRATE SHOULD BE SATURATED SURFACE DRY (SSD) WITH CLEAN WATER PRIOR TO APPLICATION. NO STANDING WATER SHOULD REMAIN DURING APPLICATION.
- SCRUB FRESH MORTAR INTO PRECEDING LIFT.
- ALLOW MORTAR OR CONCRETE TO SET TO DESIRED STIFFNESS, THEN FINISH WITH WOOD OR SPONGE FLOAT FOR A SMOOTH SURFACE.

NOTE: SIKATOP-123 PLUS MUST BE APPLIED AT A MIN. AMBIENT AIR TEMPERATURE OF 45°F. TO ACHIEVE THIS CONDITION A HEATED ENCLOSURE MAY NEED TO BE PROVIDED TO REACH THE DESIRED TEMPERATURE.

STEP 5: CURING

- AS PER ACI RECOMMENDATIONS FOR PORTLAND CEMENT CONCRETE, CURING IS REQUIRED.
- MOIST CURE WITH WET BURLAP AND POLYETHYLENE, A FINE MIST OF WATER OR WATER BASED COMPATIBLE CURING COMPOUND (ASTM C-309).
- MOIST CURING SHOULD COMMENCE IMMEDIATELY AFTER FINISHING. PROTECT FRESHLY APPLIED MORTAR FROM DIRECT SUNLIGHT, WIND, WATER AND FROST.

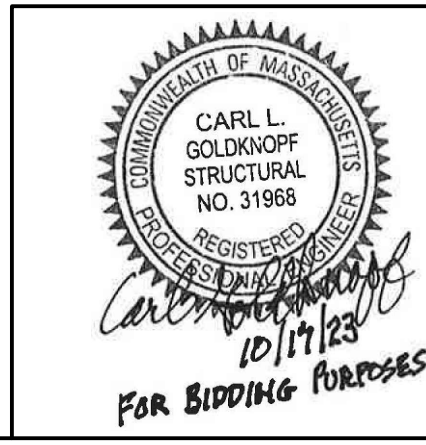
3	ISSUED FOR BIDDING	PDZ	10/17/23
2	ISSUED FOR BIDDING	PDZ	10/13/22
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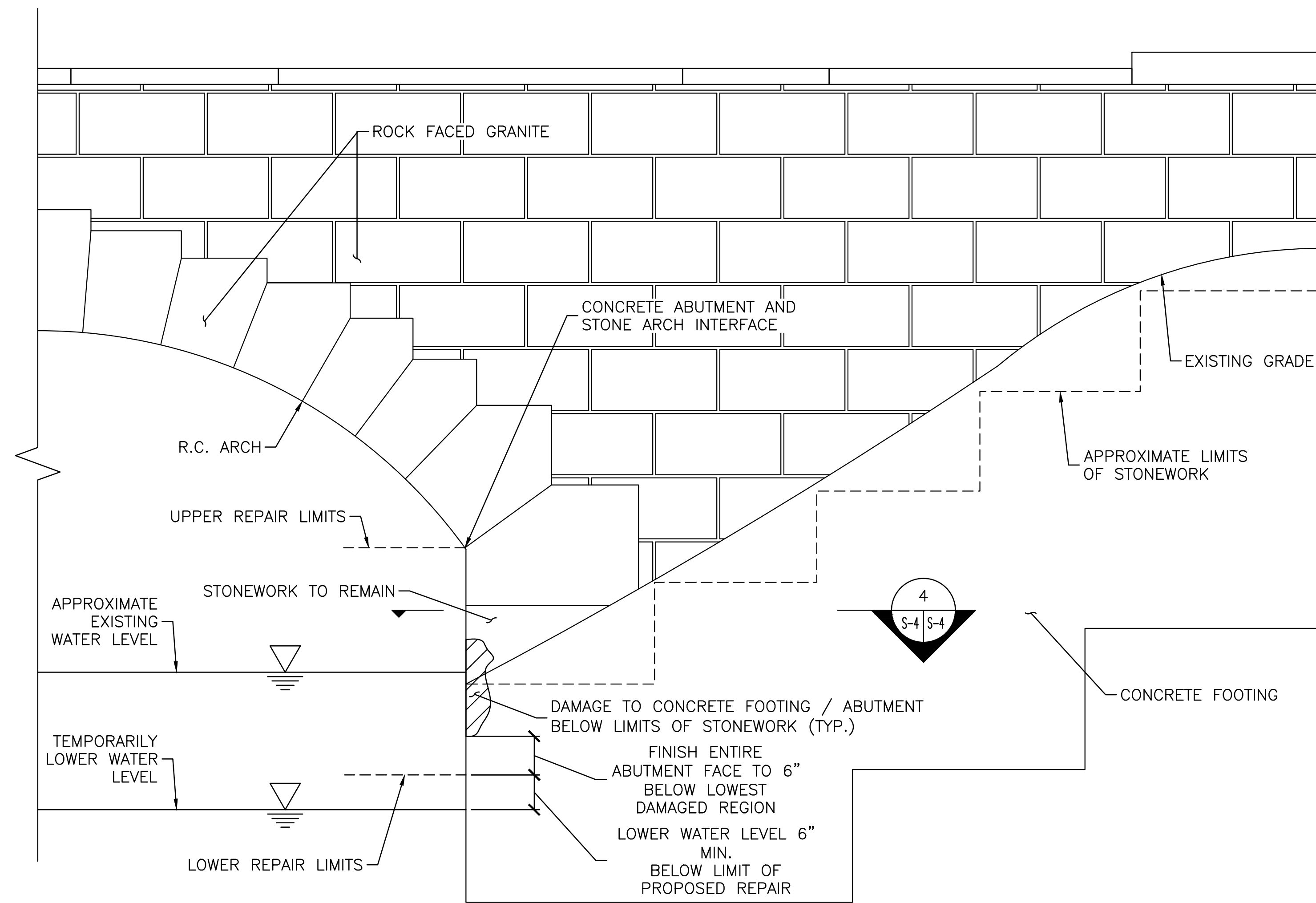
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**CITY HALL PONDS MAINTENANCE DREDGING PROJECT
NEWTON CENTRE, MASSACHUSETTS**

BRIDGE ABUTMENT REPAIR DETAILS

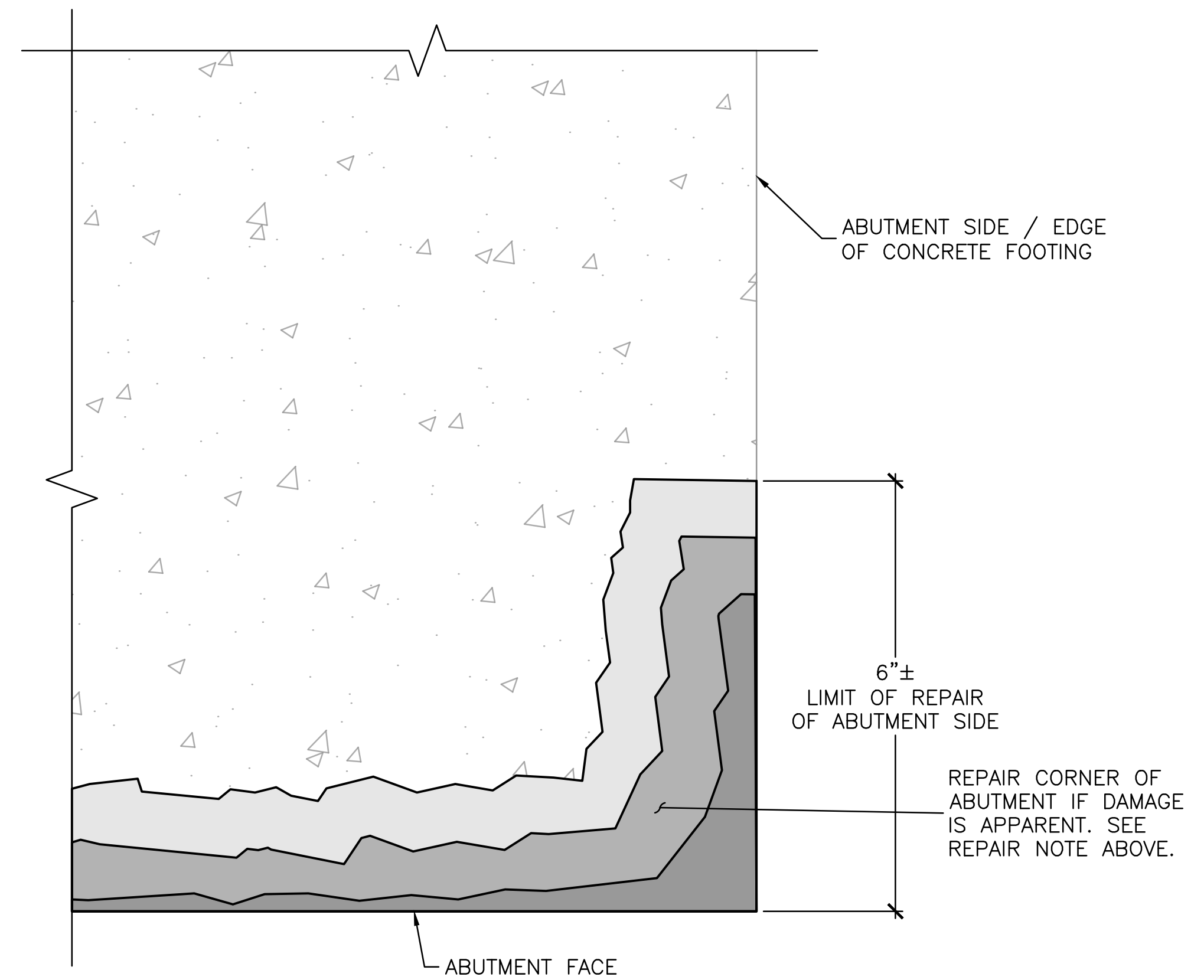
PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com	PREPARED FOR: CITY OF NEWTON DEPARTMENT OF PUBLIC WORKS 1000 COMMONWEALTH AVENUE NEWTON CENTRE, MA 02459
PROJ MGR: JRB DESIGNED BY: PDZ DATE: SEPTEMBER, 2022	REVIEWED BY: JAA DRAWN BY: PDZ PROJECT NO. 15.0166758.00
CHECKED BY: CLG SCALE: AS NOTED REVISION NO. 2	DRAWING S-3





3 TYPICAL ABUTMENT / FOOTING REPAIR ELEVATION
S-2 | S-4 N.T.S.

REPAIR NOTES:
 IN ADDITION TO THE DAMAGE TO THE ABUTMENT FACE, THERE MAY BE DAMAGE TO THE CORNER AND SIDE OF THE ABUTMENT OR THE CONCRETE FOOTING BELOW THE LIMITS OF STONWORK, AS SHOWN IN THIS PLAN VIEW. ONCE THE WATER LEVEL HAS BEEN DROPPED TO THE APPROPRIATE LEVEL, GZA WILL DETERMINE REPAIR EXTENT OF CORNER AND SIDE OF ABUTMENT. THESE AREAS SHALL BE REPAIRED USING SIKATOP-123 PLUS REPAIR MORTAR (OR APPROVED EQUIVALENT) FOLLOWING A SIMILAR PROCEDURE TO THAT SHOWN ON SHEET S-3 IF DETERMINED TO BE NEEDED.



4 TYPICAL ABUTMENT / FOOTING CORNER REPAIR
S-4 | S-4 N.T.S.

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CITY HALL PONDS MAINTENANCE DREDGING PROJECT
 NEWTON CENTRE, MASSACHUSETTS

ARCH BRIDGE ABUTMENT / FOOTING REPAIR ELEVATION

PREPARED BY: **GZA GeoEnvironmental, Inc.**
 Engineers and Scientists
 www.gza.com

PREPARED FOR: CITY OF NEWTON
 DEPARTMENT OF PUBLIC WORKS
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 NEWTON CENTRE, MA 02459

PROJ MGR: JRB	REVIEWED BY: JAA	CHECKED BY: CLG	DRAWING S-4
DESIGNED BY: PDZ	DRAWN BY: PDZ	SCALE: AS NOTED	
DATE: SEPTEMBER, 2022	PROJECT NO: 15.0166758.00	REVISION NO: 2	

